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Veterans Administration

# Advisory Committee on Health-Related Effects of Herbicides

## Transcript of Proceedings

### Twenty-Sixth Meeting
### October 21, 1986

April 1987 Washington DC 20420

VETERANS ADMINISTRATION

ADVISORY COMMITTEE ON

HEALTH-RELATED EFFECTS OF HERBICIDES

Tuesday,
October 21, 1986

Room 119
Veterans Administration
810 Vermont Avenue, N.W.
Washington, D.C. 20420

# P A R T I C I P A N T S

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Veterans Administration

JOSEPH S. CARRA
Environmental Protection Agency

CHARLES F. CONROY, JR.
West Virginia Department of Health

THOMAS J. FITZGERALD, M.D.
American Legion

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Disabled American Veterans

RICHARDA. HODDER, M.D., M.P.H.
Our Lady of Mercy Medical Center

PETER C. KAHN, PH.D.
Rutgers University and New Jersey Agent Orange Commission

KEITH D. SNYDER
Vietnam Veterans of America, Inc.

HUGH WALKUP, PH.D.
National Veterans Task Force on Agent Orange

BRIG. GENERAL SARAH P. WELLS, USAF, RETIRED
Formerly, VA Advisory Committe on Women Veterans

# C O N T E N T S

# P R O C E E D I N G S

(8:40 a.m.)

CHAIRMAN SHEPARD: I'd like to call the 26th Meeting of the VA Advisory Committee on Health-Related Effects of Herbicides to order. We are very pleased to have you all with us. I have a number of announcements to make. A lot has happened since we last got together.

Just a few housekeeping notes for those of you who have not been attending our meetings. Would you all please sign in? There is a registry in the back of the room. We like to keep track of the attendance at these meetings, and we prefer that you not smoke in this room. There is coffee available in the foyer. Restrooms are adjacent to the conference room off the hallway, and there is a cafeteria on the floor below us.

Today we have scheduled a slightly longer than usual meeting. We will have a lunch break, and then reconvene after lunch. We have a lot of issues to cover, and so I think we have a need to stay here for more than just the usual morning session.

Once, again, the VA telephone system has undergone some changes, and for those of you who may not be aware of that, in this building, the old 389 number, FTS 389 exchange number,

has been changed to 233. So those of you who are trying to reach offices in the main building from outside the VA dial 233, and then the previous four digit extension number.

Our office, that is the Agent Orange Project Office, which is located not in this building but in the Cafritz Building just on the other side of 16th Street, has a new number, and that is 653-5043, 5047 or 5049. That's also an FTS number. 653-5043, 47, or 49.

Congratulations are in order to Dr. Hugh Walkup who just received his Ph.D. in social sciences and social and educational psychology. Congratulations.

DR. WALKUP: Thank you.

CHAIRMAN SHEPARD: We are delighted to hear that. That is very good news. I know Hugh has been working on that for some time, and it is very satisfying, I'm sure.

I'm very happy to announce the awarding of two very important contracts. First of all, the ongoing effort of the literature review underwent competitive bid process. A number of good proposals were received, and it was a close call. However, Clement Associates, who have had the contract, were once again awarded the contract, and that was awarded on September 22.

So we have already had some additional meetings with them, and they are getting underway to start the next review which will be covering all the literature in 1985 and then 1986.

In that regard, we will very soon be issuing Volume 7 and 8 and a synopsis of Volume 7 and 8. Those have been submitted and are about to go to the printer so we will be seeing those very soon.

Another important contract was the award of the contract for the design of the women's study. As you know, Public Law 99-272 mandated that the VA conduct an epidemiological study to look into the health effects of women veterans who served in Vietnam.

And the contract was awarded on September 17 to New England Research Institute. Again, a number of very good proposals were submitted, and we're very happy to have that contract awarded. I just emphasize that that is a contract, and the details of this are fairly carefully spelled out in the language of the legislation, the mandated legislation.

This contract is for the design of the study, the development of the protocol. Another contract will be awarded for the actual conduct of the study. And we have monies identified in the FY 88 budget for the conduct of the study. We hope

that the study protocol will be approved well in advance of that date so we will have time to have the contracting process so that we are ready to roll at the very beginning of FY 88 which will be about a year from now.

Members of the committee have received copies of a recent study carried out, an intramural study, carried out by the National Cancer Institute under the leadership of Dr. Sheila Hoar. That article appeared in the September 5 edition of the Journal of American Medical Association, the study on risks of developing various cancers, specifically soft tissue sarcoma and other cancers as they occur in farm workers in the State of Kansas.

This study, a milestone study, I believe, will be reviewed by the VA Advisory Committee on Environmental Hazards at their next meeting which is scheduled for the third week in November.

You may have heard about a similar study, an extramural study, being done under contract to Battelle Institute. Dr. James Woods is the principal investigator of that study, a similar study looking at the risk of developing certain cancers among farm workers and forestry workers in the State of Washington.

I've been in touch with Dr. Woods. His abstract appeared in the program at the Japan meeting. He unfortunately was not able to be there to discuss his work. Actually his work has not quite been completed. The report has not been published. It is very close to being published, and I understand he has tentative approval for publication of that article, and I believe it is to appear in the Journal of the National Cancer Institute, JNCI. That's one we'll certainly be interested in looking at.

Since our last meeting, we have a new Deputy Administrator, Mr. Tom Harvey. Those of you who have been following the work of the VA and work on the Hill will know Tom. There is a biographical sketch of him in the recent issue of Vanguard.

Mr. Harvey is a Vietnam veteran and has had a distinguished career of public service, having served as senior staffer to the Senate Veterans Affairs Committee. He was confirmed by the U.S. Senate last month, excuse me, in August.

We had asked him if he would be willing to address the committee, and he said he would like to. However, he had a conflict and was not able to be with us today, but I am hopeful that we can persuade him to be present at our next meeting.

I would like to thank and applaud the work of the

committee, a subcommittee of this committee, chaired by General Wells who put together a report to the Administrator, and I'm happy to report that the report has been forwarded to the Administrator, and should be on his desk, if not now, very shortly.

And members of the committee have been provided, I think it was a draft of this report was circulated for comment prior to it being sent out by my office through the Chief Medical Director to the Administrator.

It's a two-page report that summarizes the work of this committee, and I think it's a very good piece of work.

GENERAL WELLS: Dr. FitzGerald and Keith Snyder were on that committee with me.

CHAIRMAN SHEPARD: Dr. FitzGerald and Keith Snyder were also members of that committee. Thank you.

I'm sure that many of you are aware that some of us were privileged to attend the Sixth International Symposium on Dioxins and Related Compounds, held in Fukuoka, Japan, in September 16-19. Dr. Kahn was there, I know, and Dr. Han Kang, and myself.

It was a very well attended meeting. A number of very interesting reports were presented. Dr. Kahn, later on

in the program, will present the results of a study, that he is undertaking which we are very interested in, which he presented at the Japan meeting and has attracted some attention from the press since then.

So we look forward to Dr. Kahn's presentation.

DR. KAHN: I don't answer my phone anymore.

(Laughter.)

CHAIRMAN SHEPARD: We had the privilege of presenting two papers and two posters on some of the work that we have been involved in. I presented our work on the suicide study, and Dr. Kahn presented the work on the soft tissue sarcoma efforts.

As I say, the meeting was very well attended. I think there were probably in excess of 250 people registered at the meeting. Of interest was the fact that there were a number of Vietnamese scientists there who presented several papers, and it was very interesting to meet them and hear the results of their efforts.

My deputy, Dr. Lawrence Hobson, is no longer in the Agent Orange Projects Office. He has recently been made the director of the Office of Emergency Management and Resource Sharing Service. We wish Dr. Hobson success in his new responsibility.

The Agent Orange Working Group Science Panel and the parent body meet the last week of September primarily to consider the proposal of CDC for a validation effort of military records in order to proceed with the Agent Orange cohort study.

I'm sure many of you have been following the progress of that with interest, and we are very pleased that we will have a report from CDC later on on the agenda. But I just wanted to share with you the fact that the Science Panel reviewed the protocol submitted by CDC to conduct a study to look at the correlating levels of serum lipid dioxin levels with military records in order to validate military records which suggest high levels, high opportunity for exposure among certain ground troops in Vietnam, and similarly troops with little or no opportunity for exposure.

The current proposal is to study approximately 250 individuals in whom the military records suggest high levels of exposure or high opportunity for exposure, and 150 veterans with little or no opportunity for exposure, to see if there is a good correlation between the serum levels of dioxins and that fact of exposure.

DR. KAHN: Barclay, I would like to put it out on

the table that I think this committee should have a careful look at that as well. I don't think that study should proceed until we've had a good careful opportunity to see the plans and comment on them. That's what we are here for.

And if anybody has "dibs" on thinking about that kind of a procedure, I do.

CHAIRMAN SHEPARD: I see no problem with that. Whether or not the committee considers itself -- I'll stop there. There are a number of reviews going on, as you probably know. By law, the Office of Technology Assessment is required to review the study, and that is scheduled for later on this month, I believe, on the 27th of this month.

They are scheduled to meet to look at that protocol. Yes, I see no problem with that protocol being reviewed by this committee, as well. As a matter of fact, it's on the agenda, we have a letter from -- we, the Administrator, Mr. Turnage -- received a letter from Senator Murkowski asking this committee to review the validity of using blood dioxin levels for validating exposure. And it is on the agenda to address that. So I will bring it up in a little bit.

The Science Panel the following day reported to the parent body of the Agent Orange Working Group which approved

the protocol to be reviewed by the Office of Technology Assessment, and directed CDC to proceed with the next step of identifying the criteria for selecting the individuals to be tested and details relating to that.

Another announcement deals with an upcoming airing by NBC of the made-for-TV movie entitled "Unnatural Causes." You may have seen the announcement. We have information that this is being scheduled for airing on the evening of November 10 at 9 p.m. on NBC.

Some of the lead cast include Patti LaBelle, John Ritter and Alfre Woodard.

DR. HODDER: Are you in it, Barclay?

CHAIRMAN SHEPARD: Not to my knowledge. One never knows.

(Laughter.)

DR. KAHN: What is this film on? What is the NBC film on?

CHAIRMAN SHEPARD: I think it's the story of Maude DeVictor and the genesis of the Agent Orange issue. It's called "Unnatural Causes." I haven't seen it so I can't tell whether I'm in it or not.

I think we will now move into our agenda. You should

all have copies of that in front of you. Unless there are any questions on the announcements I've made, any questions or comments from the committee?

(No response.)

MASSACHUSETTS HEALTH SURVEY OF VIETNAM VETERANS

CHAIRMAN SHEPARD: At our last meeting, there was a discussion of the Massachusetts Survey of Vietnam Veterans, and we agreed to include it on the agenda today. A number of you asked for that to happen.

Some of you provided comments to us about the study, but I would like to open up the discussion now on the study for any further comments that you may have. As you recall, this is a study, a survey -- this is not to be confused with the mortality study by Massachusetts. That's a different issue.

This is a survey of Vietnam veterans in the State of Massachusetts which was provided to us, I think, at our last meeting. Any comments, questions?

Question on the agenda is "Of what value is this survey to the Veterans Administration in the resolution of the herbicide controversy?"

So in your capacity as advisors to the VA, we would like to have some kind of comment in that area.

GENERAL WELLS: I have some concerns about that study.

I saw it for the first time after this meeting, and I think it is important for the VA to know how those people in Massachusetts feel. And it is very important for the State of Massachusetts to know how the veterans feel.

But I'm a little bit concerned that there were -- and this may be old hat to you people -- that there was no control group, and in reading that I thought that was maybe a kind of biased group of people that they studied, and so I would throw that out on the table for discussion.

CHAIRMAN SHEPARD: Thank you. Any other comments?

DR. WALKUP: I think that is something we see a lot of times, especially in this kind of survey. I think as you said initially, though, the perception of a lot of veterans still is consistent with what shows up here and shows up time after time.

And I think that is something that the VA has not been effective in dealing with. And we've talked about that a number of times and voiced a lot of concern about it, but how we go about identifying better with the studies that are underway, what the real health problems are after all this time, or how we go about communicating with veterans that they don't need to be as anxious as they are seems to be something that is beyond

the Veterans Administration and the rest of us. I think the study again points out, whatever the validity of the study, whatever its methodological problems, vets are still worried. And that is something that we need to deal with.

CHAIRMAN SHEPARD: If I may just step in for a moment. I think that's a very important point, Hugh, and I would really urge and solicit this committee to take on the issue of how do we communicate better to veterans in terms of either raising concerns or allaying concerns or just giving the facts because I personally feel that this is an area where we need to strengthen our position. And I would strongly solicit this committee to address that issue in whatever ways you feel appropriate because I think you've touched on really the heart of the matter that veterans who are not perhaps scientifically sophisticated or medically sophisticated are bombarded with tremendous amount of information. It's very difficult, I think, for them to sort out all of it and try and make some sense of it.

That isn't to say that that same bombardment doesn't go on with everybody everyday. I mean I don't want to single out the veterans, Vietnam veterans, as being in that sense very different than many other people. But I think it's of particular

concern because, for example, and I'm inclined to make this announcement, there is another series of concerns that have been raised, largely as a result of the Zumwalt story. As you know, Admiral Zumwalt and his son have written a book called My Father, My Son. It had a long -- I think it got a 15 minute airing on "20/20," and in the "New York Times" and "The Washington Post." It today appeared in "Navy Times," yesterday a full page article.

So that is a situation which is ongoing, and albeit a single case, it is nevertheless a fairly powerful case in view of the position that Admiral Zumwalt held in his last years serving in the Navy.

Anyway, that is another example of the information explosion on this issue, and I personally -- and I'm just speaking for myself now -- feel that there is room for considerable effort in terms of communicating to veterans. And I, again, sincerely hope that this committee can address that issue.

DR. WALKUP: I think an underlying thing that is happening there is that the media, at least, and a lot of veterans, I think, have switched positions with the VA. That they are asserting presumptive cause which is a traditional test for disabilities in the Veterans Administration.

On the Agent Orange issue, there is no presumptive cause, but it's proof. But what we're trying to prove is the null hypothesis that there is some specific link between dioxins and the problems that veterans are alleging. I think that underlies a lot of the communication problems and a lot of the perception of veterans that makes it difficult to trust some of the information that says that Agent Orange doesn't do all the things that we say it does. Because the people who are saying that are the people who have been saying that for a long time without a lot of information.

And I think somehow if the Veterans Administration credibility or the Administration's credibility is going to be improved with Vietnam veterans, it's going to be necessary to be more open to some of the possible health effects of herbicides than has been displayed in the past.

Specifically, when the first interim procedures were put out, there were several possible health problems associated with Agent Orange that were listed. A short while later chloracne was the only one on the list still. Given the scientific evidence that is available, I don't think we can say with certainty that chloracne is the only one that is out there still. Yet that has become the Veterans Administration

position. As long as that continues, the communication problem is going to be there, I believe.

CHAIRMAN SHEPARD: Okay. Thank you. Any other comments?

DR. KAHN: I'll offer one. One of the things that has bothered me about the issue since its inception is the fact that the federal government appears to be hiding behind science on an issue which contains at least as much of a moral and political component as it does a scientific.

If you look at the collection of symptoms that veterans in the aggregate seem to display, while there is great variation from man to man, there certainly is consistency with the kinds of stuff we see in person who have been exposed in factory accidents but, of course, on a lower scale.

One can advance a plausible argument, even if it's not ironclad, that many of the problems the vets do have might well be related to Agent Orange exposure. They might not be, but they might well be. You then face a choice of which kind of error you're willing to risk.

One kind of error that we're willing to risk which is the one we're taking now is that we'll do not very much for these men until such time that science can prove beyond

reasonable doubt, in the sense of a murder conviction, that the medical problems are attributable to exposure to Agent Orange in Vietnam.

And if that takes 20 years, well, then those men will go 20 years without necessary help, help that they need now. Well, it may turn out --

CHAIRMAN SHEPARD: Excuse me for interrupting. Could you be a little more specific when you say help? I think that needs to be defined because I think there is help there, but maybe --

DR. KAHN: There is some help there. There is some degree of medical help for them. There's not a whole --

CHAIRMAN SHEPARD: I'm not sure that I understand what you say when you say "help." If you would be a little bit more specific, that would be very helpful, I think, to all of us.

DR. KAHN: In part it's medical help, but I know they get some of that. In part, it's disability for those who are incapable of working. In part, it's some sort of insurance in the event they kick off prematurely.

I don't know all the kinds of help that the VA is empowered to make available. In other cases, of a man being shot, for example, the perception is out there is that the

government has basically turned its back on these men, and we take a risk by going on for 20 years, and finding out that sure enough, there was a connection 20 years later.

The reverse possibility would be to offer generous help, perhaps beyond what is offered to veterans of Korea, offer generous help for a period of time, and let the science proceed in the organized leisurely way that science has to proceed if it's to get any kind of credible results at all.

That way the pressure if off the likes of me. I don't have to do my work in a goldfish bowl. I don't like having to deal with this all the time. Well, if we say we're going to offer generous aid, perhaps beyond what the VA now offers to disabled veterans, to Vietnam veterans, whatever their problems, we will be taking a reverse risk.

And the nature of that reverse risk is we may be helping me whose problems do not arise from military service. And if in ten years or 20 years, or whatever period of time it takes, we can prove that, well, then you stop the help. Okay.

Well, it seems to me the choice of which of those you take, whatever the current state of the legislation on this subject, is primarily a moral issue and to some extent a political one. It is not a scientific issue.

And I think the quality of the country, the moral quality of the country, is shown in the choice that we have taken, and I don't like that choice. I particularly don't like a consequence of that choice is it makes science and scientists the public scapegoat for inability at present to prove beyond reasonable doubt, as opposed to preponderance of evidence perhaps, that Agent Orange, dioxin, whatever, is guilty.

I can't do that yet. I may never be able to do that. Because there may not be a connection, and if there is we may not have the tools to prove it. And in the meantime because of the weaknesses of science, these fellows are left twisting in the wind.

Now, the VA's current legislation which governs what you may and may not do may not allow you to go out and pay men money, provide extended GI bill, extended counseling, whatever is needed, and whatever is not now being provided under current law.

But the VA has the power to go to the Congress and make this case and say this is a moral issue; this is what we think ought to be done; and if you did this, you would come up smelling like roses, and the credibility of the government would be immeasurably raised, not just in the eyes of the Vietnam veteran,

but in the eyes of all people. And yet the VA and the rest of the government -- I won't blame the VA entirely -- seems to go along in its same old way without a clue as to the erosion of the consent of the government going on underneath it.

You can change that. In one day you can change that by going to the Congress and saying you think these men should be helped against the possibility that what seems a little plausible now may prove true in ten years time.

And we think this would be the generous and decent and humane way to deal with the Vietnam vet. If you do that, all credibility problems with disappear. The science can proceed in a leisurely way with the eager help of everybody around. True, you may spend money on men whose problems are not Agent Orange related.

True, there are going to be some guys out there who are going to want to skin Uncle Sam for every dime they can get. But you make a deliberate choice of putting up with that in order to benefit the greater number over that period of time.

CHAIRMAN SHEPARD: Okay. I'm wondering if we can get back to the Massachusetts survey and sort of close the loop on that unless that's already been accomplished.

DR. KAHN: Well, I was on that subject and picking up

on Hugh's point.

CHAIRMAN SHEPARD: Okay.

DR. KAHN: Okay.

CHAIRMAN SHEPARD: Then can we get back to the question of whether or not the survey as conducted and reported will be helpful in the process of adjudicating -- well, I shouldn't say necessarily adjudicating claims, but resolving the herbicide controversy?

DR. WALKUP: Let me summarize maybe how I think the conversation responded to that. As the General said, although there may be methodological problems with the study, it definitely indicates attitudes and perceptions among veterans regarding the Agent Orange controversy; and specifically in response to your question about how the VA could respond to that sort of perceptual set, I think Dr. Kahn was offering some suggestions about a more pro-active stance the Veterans Administration could take to overcome the attitudes that the veterans have as they are represented in the Massachusetts study and any other survey that you take of Vietnam veterans.

CHAIRMAN SHEPARD: Okay. Are there any other comments on the Massachusetts survey? I appreciate your comments, I really do, and I think that, as I said earlier, I think that

this can be certainly one of the data bases for information which could be helpful in not telling us whether there is an association between Agent Orange exposure and health problems, but the broader question of what kind of health problems are Vietnam veterans experiencing?

Am I correct in that assumption? Dr. Hodder?

DR. HODDER: At the risk of getting off the track, to follow up on what Peter and you have said, following along the logic of what we've been working on, the concept of science trying to resolve the problem and guide congressional response, I often have used the example that science has presented an extremely strong case against tobacco to Congress since 1952. Yet the magnitude of response has been limited to a change in the advertising label on the cigarette pack and a ban in the advertising on TV.

Otherwise, basically that's been very little responded to. I think it's interesting that we're now getting closer to the heart of the issue: getting the message correctly carried to Congress.

I think some of the frustration you have, and I know Peter is stressing also for the scientists, is that the rhetoric the veterans' advocates have had to use to bring the issue before

the media and before Congress may be harmful to the individual veteran out there who really has a very poor capability perhaps of dealing with scientific information. We are after all pulling together some pretty sophisticated scientific groups, e.g. the Science Panel, to evaluate the information and there is considerable difficulty coming to agreement even among those scientists.

What I find interesting is that I don't think this same discussion could have been held two years ago though. I don't think Congress was structuring the question the way that it could be responded to, and I don't think the veterans were, at that point,

willing to raise the question of whether dioxin could perhaps be a false trail.

I welcome the idea of addressing the basic questions of "were the surviving veterans from Vietnam exposed to other problems that they brought back with them and which gives them a disease burden beyond the general public's expectation?" And "can we pose the question in a constructive way to our lawmakers and our executive branches to respond in such a way that we can get harmful rhetoric out of the system and perhaps look for some reasonable solution.

I would just make one other point. Science has got to

be maintained as a tool. It can't do what I think a lot of the media thinks it's going to do. None of these studies are going to give anymore than a statement of some form of probability with varying sophistication of the possible link of an exposure with a disease.

Science will not give an exact answer regardless.

CHAIRMAN SHEPARD: Thank you, Dr. Hodder. Any other comments?

Next, I would like to move on to the question of -- again, this is as request of our deliberations last time -- an update on the status of veterans disability compensation claims. And I have asked Mr. Herb Mars and Mr. Gary Hickman if they would address the committee on those issues. I see Gary is here. Gary, would you like to come up here.

Members of the committee have been provided, I believe you have been provided a statement or a memorandum concerning this issue, and Gary is prepared now to elaborate on that. Gary.

VA DISABILITY CLAIMS

MR. HICKMAN: Thank you, Dr. Shepard. It's a pleasure for me to be here. I'm substituting for Mr. Mars. I'm the Assistant Director for Policy in the Compensation and Pension Service.

As of 9/23/86, our system of records indicates that 29,191 veterans have filed claims alleging Agent Orange exposure. We have evolved into a system of records from a handcounting system and our handcounting system begins with someone claiming Agent Orange on their application. We counted that as a case in our system of records today.

We are modifying our system to allow us in the future to identify the specific disability or disabilities alleged to have been caused by Agent Orange exposure.

It will be some time, however, before all of the 29,000 records are updated to reflect this. Of those 29,000 plus veterans, a total of 39,237 service-connected disabilities have been granted, of which 9,249 or 23 percent of the service-connected conditions are skin disorders.

We also have 90,763 non-service connected disabilities of which 25,000 are skin disorders. Another issue which I think you are interested in is the statutory authority for interim benefits under Public Law 98-542 expired on September 30 of this year.

We received 41 claims during this two year period: 12 for chloracne, 28 for PCT, and one for death benefits. None

were allowed. The major reasons for disallowance were non-existence of the qualifying condition, or manifestation of a condition more than one year after leaving Vietnam

The Veterans Advisory Committee on Environmental Hazards will meet November 17 and 18th, and we've been following and working with that committee in order to determine whether changes in our existing regulations based upon 98-542 would be responsive.

I think that is basically the issues where we are today. I'll be happy to answer any questions.

CHAIRMAN SHEPARD: Thank you, Gary. Yes?

MR. SNYDER: On the 41 cases for the interim benefits, do you have all those cases here at the central office. Were copies of any decisional documents called up and medical records to confirm the diagnosis here?

MR. HICKMAN: We do have the records, the rating decision sheets are here in the central office.

MR. SNYDER: I notice your reference here in the report -- and thank you very much for providing that -- indicated that the main reasons for denial were non-existence of the claimed condition. Of those 41, where there were 12 for chloracne, were any of those chloracne cases actually diagnosed

as chloracne, or was that simply the claim that then was unsubstantiated by the medical records?

MR. HICKMAN: I'll have to go back and check the records. I cannot give you a definitive answer at this time, but we can check and give you something later.

MR. SNYDER: What about the PCT? Is that the same?

MR. HICKMAN: Same thing. I would have to go back and review the records.

MR. SNYDER: Could you please, or would it be possible to have copies of the rating decision simply with names and identifiers expunged. That would tell us, I presume, there was a confirmed diagnosis of a specific condition.

MR. HICKMAN: That would be available, yes.

MR. SNYDER: I would appreciate it if we could -- I would be very interested in seeing those claims. I'm also wondering -- do you know because part of the regulations provide for benefits -- if those conditions appeared within a specific time period.

The regulations and the manual provisions that implement those regulations are a little difficult to read, and I sympathize with those people that would have to apply them. For example, if the chloracne, under the regulations it has

to develop within three months, but under the interim benefits within 12 months. Of the 12 chloracne cases, do we know whether, for example, the chloracne manifested itself within 13 months or 12 months, just outside the 12 month period?

Do we have any idea, any sense of when the chloracne was showing up?

MR. HICKMAN: If it did show up, then it would have been within that time frame. I'm sorry. For the most part, it did not show up. There was a claim for it, and it did not show up. But we'll have to review those records to give you an answer. We'll provide that for you.

MR. SNYDER: Okay. Because I would be very interested in seeing for those cases in which chloracne or PCT was actually confirmed, what then was the time factor of its appearance.

I had one other concern, too, about the method of adjudicating both the regular service connected claims as well as these interim benefits claims because the manual that the adjudicators rely upon, and I believe in part, the materials that you or Mr. Mars had provided with us in advance, there was an excerpt from that manual, the M21-1 manual.

It indicated very plainly there that -- well, actually what it indicated was no reference whatsoever to the interim

benefits being available in the manual provision. The manual, as I understand it, simply implemented the regulations, and the regulations say chloracne within three months.

The regulations, the 3.800 part, that talk about the interim benefits were not implemented in the manual, and that raises a concern with me that are you confident that your adjudication staff, new people in particular that would come on, that would have this manual, and it would say chloracne has to appear within three months, and there was no reference on this page or in this paragraph, no cross-reference to any other explanation of interim benefits. I would be a little concerned if I saw this, or if I were an adjudicator I would not know that there was anything else available to people.

Are you confident that in the training program that you've got for your adjudicators that they know that other literature is out there guiding them on how to do the interim benefits claims?

MR. HICKMAN: I am confident for several reasons. We're not talking about new people who are actually working these cases. We are talking about experienced people on the rating boards who are actually doing the adjudication of the cases, for one thing.

We did issue interim instructions at the very beginning when the public law was passed informing these people, and we have had rating training classes subsequent to the law explaining this issue to the rating board personnel.

We also went through our system of records at that time and went back to find out all claims in which chloracne or PCT were mentioned, and I think it was approximately 25 initially, and we sent those back to the field stations and ask them to rerate the cases.

MR. SNYDER: Looking specifically to see if interim benefits would be appropriate?

MR. HICKMAN: Yes, interim benefits, yes.

MR. SNYDER: And but the result of that was not?

MR. HICKMAN: The results were none were shown to be service-related.

MR. SNYDER: I guess one followup I have on the disability claims and the process the VA is engaging in here, you have -- the other committee that is kind of our sister or brother committee, in a sense, the Environmental Hazards Committee, had to review various studies as part of its mandate from Congress, I believe, to decide on what specific conditions should be allowed for service connection.

But as I've understood from review of the minutes of those meetings that there were only about maybe seven studies that had been reviewed prior to issuance of final regulations. You've gotten some more scheduled to be reviewed in the November meeting, I believe.

But the reference, Dr. Shepard, that you had made earlier for us to the numbers of scientific studies that have been digested and the contracts awarded to was it Clement Associates for additional review of the literature, it was suggested -- I think there are many more than seven or 17 or 30 studies out there, but in fact, maybe hundreds of studies.

How is decided which studies should be presented and reviewed prior to selecting a condition which would then be service connected? Do you have any awareness of what that process was, and how we might as a committee affect what studies should be presented to the other committee for its review, or to the VA?

MR. HICKMAN: I'll have to defer to you, Dr. Shepard. Maybe you can provide an answer to that. I cannot provide you an answer as to exactly what studies that are out there, and which ones they should review from this point on, and why they selected those in which they did.

All I can say is it is a short time frame in which the initial regulations were developed. We asked the committee to review them. They did and provided comments. I know that they will be reviewing further studies, and if necessary, we will modify our regulations when such evidence is presented.

MR. SNYDER: Because the regulations are, I think, one of the central issues to this committee, and how the service connected compensation, those claims are adjudicated. I would be very interested in having an opportunity for that person or people who make those preliminary decisions on what scientific studies to present, having an opportunity to have them speak to us and explain how the studies were selected.

It just seems that if there are, in fact, a thousand or more studies out there, certainly in the annotated bibliographies that the VA has caused to be published, there are many hundreds of studies.

It's of interest to me how it was that only seven or only a couple dozen have been considered then by the committee in making a decision then on what condition is to be service connected. So I would appreciate it -- you don't know now if someone could be -- we could be told who we could ask and perhaps the committee could specifically invite for our next session

someone to tell us how that process went. That is of interest to me.

CHAIRMAN SHEPARD: Okay. I'm sure that we can -- I say I'm sure -- I will be happy to ask Mr. Conway who is the Executive Secretary for that committee to provide us with some statement as to how the studies to be reviewed by the committee are determined.

Just as a matter of announcement, we are now in the process of putting together a statement for the Federal Register that will summarize the studies that have been reviewed and the conclusions that have been drawn. So there will be something coming out within a relatively short period of time.

I would also encourage any of you who are interested, there is the Advisory Committee on Environmental Hazards. It, like this committee, is an open committee, and I would urge any members of this committee who can do so to attend the next committee meeting. I believe it's on the 17th of November, 17th and 18th, two-day meeting. That will be held in the Omar Bradley Conference Room on the 10th floor of this building.

And I think it might be possible to address that question to the chairman of the committee at that time. My personal observation is that most of the studies that have

reviewed are ones that are considered scientifically valid studies in that they have appeared either as reports by state organizations or have appeared in the peer review literature and relate directly to health effects of herbicides.

Obviously, it would be an impossible task for the committee to review all of the literature, animal studies and so forth. It's a large volume of literature, and if you get into the chemical analysis and all the technology that is burgeoning in that area, I think it would be an unreasonable task for that committee to review all of the literature on the subject.

I think that the committee has a rather specific charter, that is, to look at evidence for adjudicating, that would affect VA's policy for adjudicating claims. And so they are, I think, understandably concerned about scientific literature or scientific studies that relate to that particular question.

But I can see it's a good question, Keith, and I think it is one that needs to be answered, if there is a process. I'm not even sure that there is an organized process --

MR. SNYDER: I should hope there is some organized

process. May I --

CHAIRMAN SHEPARD: Mr. Conway, would you like to answer the question or address the question? Mr. Conway is here.

MR. CONWAY: I can answer the question.

CHAIRMAN SHEPARD: Good. Mr. Fred Conway from the General Counsel's Office who is the Executive Secretary of the Advisory Committee on Environmental Hazards.

MR. CONWAY: The process is really a very simple one. I have asked the Agent Orange Projects Office and the Director of Radiology Service to keep me advised of current literature that would include studies that would be of relevance to the subject matter, namely health effects of exposure to dioxin.

I have also asked the committee members if they become aware of studies and they want to have them brought to the committee's attention, to let me know, and I'll put them on the agenda.

I have also asked individual organizations when from time to time they ask about data for the committee, what they're doing, I in my letters back to them will invariably ask them if they are aware of any studies or any issues they want to have the committee address, please bring them to my attention.

I asked the Vietnam Veterans of American that question also. Some individuals and organizations do respond with suggestions. Others provide me unsolicited copies of studies, some of which are not very, in my judgment, very good, but I don't make that decision. I report them right to the committee chairman, Dr. Kurland, who is the Scientific Council chairman, and let him make the final decision as to whether he feels that the study is of such merit as to deserve the attention of the committee or whether it is so on its face not worthy of discussion that it won't go any further than that.

But the decision as to which studies are being considered by the committee is ultimately determined at the Scientific Council.

MR. SNYDER: Had there been a decision made that no animal studies regardless of their significance were appropriate for consideration?

MR. CONWAY: No, there has been no decision setting forth the parameters of the studies that will be considered. If there is someone out there, either a member of the committee or a member of Dr. Shepard's office, or service organization, or any scientific entity, who believes a study is of some significance to the issue and wants it to be considered by the committee, I

would be glad to present it to Dr. Kurland and let him make the decision. And I must say up to this point I'm not aware of any study that Dr. Kurland has rejected that I have brought to his attention.

MR. SNYDER: Thank you.

DR. WALKUP: Back before that committee was formed when we were talking about its formation and its impact on this committee, I think you were with us, and one of the things we talked about quite a bit was as the two committees went their different ways, it was important to maintain communication. And as you said, Dr. Shepard, they are public meetings and anyone can attend.

For those of us from the Pacific Northwest, that's a little difficult, and I would really encourage you again, as I did then and as we talked, to schedule at least one meeting of that committee and this committee in conjunction with each other, and maybe schedule some time for dialogue between the two committees so that we can share some information.

I recognize they're also dealing with radiation, but I think the issue on dioxin is important. I guess this is my annual "let's talk with those folks plea." I would really appreciate that, and would appreciate any sort of recommendation

you would have about what actions this committee could take to either communicate directly with that committee, with the Administrator, something to be able to effectuate that sort of conjunction of meetings.

MR. CONWAY: Our meetings are not held with the frequency that this committee has its meetings. We have been holding them on a semi-annual basis up to this point. My guess is the next meeting after the November meeting will be sometime in March or April. That may give us enough leeway and planning time so maybe we can work something out to have a joint meeting.

I think it would be a worthwhile venture so that you can all get to know each other and know who the players are on the respective committees. I would be willing to try to work that out. As I say, because of the kind of individuals we have on our committee, their schedules are usally set far in advance. I have difficulty in March finding a time for a meeting in November when everybody or a vast majority of the members could be present because of their busy work schedules and travel schedules and so forth.

So that's why I plan much further in advance than I would like to. Maybe we could work something out for March or April if that is agreeable to the members of this committee.

I will certainly mention it at our advisory committee in November. If the committee members are agreeable to it, I will try to my best to work with Dr. Shepard.

MR. SNYDER: I think perhaps, Dr. Shepard, our report of this meeting should reflect our desire that there be such a coordination. And that that either be in the form of a formal resolution, or simply as one of the recommendations in that report. I think that unless there is disagreement that that would be a useful thing to try to do.

MR. CONWAY: I honestly don't recall -- has this committee been given copies of the summary minutes of the Advisory Committee on Environmental Hazards?

MR. SNYDER: I don't believe so. These are summary minutes, not a transcript?

MR. CONWAY: Summary minutes. We do not keep a transcript. We keep only summary minutes. There is a tape recording of the meeting available if you want to listen to the 16 hours of tapes, but we do not have a verbatim transcript.

MR. SNYDER: But there is a summary of --

MR. CONWAY: There are summary minutes available, and I can distribute them to make as part of the regular process . My mailing list is getting longer and longer. I don't mind

adding a few more names, if you want. If you feel it would be helpful, I'd be glad to do it.

CHAIRMAN SHEPARD: Yes. I think we discussed that, and if we haven't done it, I apologize, but we will certainly take care of that, and even if we have it, we'll mail them out again. But I gather we did not send out copies of the minutes. Okay.

MR. CONWAY: Do you want all the previous minutes or just from now forward, or --

MR. SNYDER: I would enjoy -- we're only talking about two or three other previous sessions?

MR. CONWAY: Yes. Three sessions.

MR. CARRA : I would like the previous minutes.

MR. CONWAY: No problem.

MR. SNYDER: Maybe, Dr. Shepard, while Mr. Conway is here since you're with the General Counsel's office, I had kind of a related question that is semi-legal perhaps. The interim benefits program did, as we all know, expire last month, and I am wondering whether the consensus perhaps of the committee would be that we ask the Administrator to consider one of two things, either administratively extending that period within which people can apply for interim benefits, or going to Congress and saying that given the legislative history of the bill that

led to these interim benefits, and that legislative history briefly, I think, and strongly suggests that interim benefits were desired by Congress for a two year period because there was a feeling that for sure there would be -- the epidemiological study results would be out, and there would be some sense of where to go well within that period of time.

And as we know, that hasn't happened. But the interim benefits period has expired, and I should think that that might be something which, again, the Administration either could do administratively, simply by extending it through a proposed rulemaking or some sort of a notice fashion.

Of if you feel that that's not appropriate, there has to be new legislation, can you report to us whether there is any movement afoot to initiate that in the legislation?

MR. CONWAY: I would defer to the Department of Veterans Benefits on that. I'm not aware of any initiative on the part of the agency to either administratively or legislatively seek an extension of the benefits.

MR. HICKMAN: We have not made any move at this time. I think that would be something in which the Administration, the Administrator and the Administration, would have to consider. That's something to be considered, and we cannot make

a statement here as to what we will or will not do at the time.

MR. SNYDER: Dr. Shepard, if I might then follow that up. If there is no movement by the Agency currently to ask for such an extension, I think it would be appropriate for our committee to either strongly recommend and so report in our report of this meeting, or have a formal resolution that the Administration, in fact, consider an extension of the interim benefits period.

Is there any reason perhaps the other service organization representatives might not want to ask the VA for such an extension, or can we include in our report that we recommend to you, to the Administrator, that he, in fact, pursue such an extension, whether it be administratively or through new legislation.

I think in terms of the cost to the VA if the 41 claims so far have not been allowed, there shouldn't be much reluctance to open the period a little bit longer, and I think it does signal a message certainly to the veterans community that the VA is interested in soliciting those specific claims even those are fairly narrow conditions for which it would grant interim benefits.

I think it would be a useful endeavor for the VA to be on record as, at least this committee on record, as to calling for the VA to extend the interim benefits period.

DR. KAHN: Make it a formal motion. Make it it formal advice.

MR. SNYDER: Last time I did that I had to end up typing it several times, but we certainly can try that.

DR. KAHN: This is short enough that you can hand-write it in 30 seconds.

MR. SNYDER: And read my handwriting. Why don't I do that and then pass that out to people at the lunch break. We're going to be here through this afternoon, and then I'll take it quickly after lunch.

DR. KAHN: If we're going to give advice, let's give advice.

MR. SNYDER: Okay.

CHAIRMAN SHEPARD: I would agree certainly.

MR. SNYDER: And the sense of that advice would be to recommend to the Administrator either to pursue simply an order or a notice, some administrative procedure by which the Administrator simply says the interim benefit period is extended, or if on advice of general counsel or somebody else

says that we can't just order it done, then go to Congress and say let's get new legislation to extend the interim benefits period.

DR. WALKUP: I think I concur with you, but I would really like to clarify some of what you were saying now. What I interpret what I heard from you is that this isn't really going to do veterans a whole lot of good anyhow, but it will give the impression or convey the Veterans Administration's concern about veterans who may have some concerns about this.

I mean 41 vets have applied. They haven't gotten anything. We may have three -- you know, if it's extended, and they won't get anything either, but at least by extending it, it may give some sort of impression of concern on behalf of the Veterans Administration. Is that what you're saying?

MR. SNYDER: Well, there is always the hope, too, that in fact somebody is going to have their claim allowed. And the interim benefits period for when chloracne and PCT manifest is one year versus the three months for the regulations so that it is more liberal.

And I think there is -- I certainly believe there are people out there who need the benefits for at least those two conditions certainly. So more than simply a message that the

VA is sending may not bear fruit may well, in fact, give people an opportunity to get benefits that they need.

DR. WALKUP: A related question to that is out of 41 cases did anyone have claims allowed under other provisions, or were they denied totally?

MR. HICKMAN: We'll have to check that. A lot of these claimants have had claims allowed because there is evidence of the disability occurring in service. That was one of those statements I made earlier. The fact that of the 29,000 we've rated there are 39,000 service connected conditions. These may or may not be related to Agent Orange. It makes no difference to us just as long as there is an occurrence or aggravation while on active duty.

DR. WALKUP: Could you --

MR. HICKMAN: We will be checking the 41 for Mr. Snyder and we can do the same thing related to your question.

DR. WALKUP: Thank you.

CHAIRMAN SHEPARD: Any other questions for Mr. Hickman? Or for Mr. Conway?

(No response.)

CHAIRMAN SHEPARD: Thank you very much, gentlemen. Next on our agenda is a discussion of the New Jersey dioxin

study. This is a study, as you know, that has been underway for some time now. We have been following its progress with great interest, and I can assure all of you that the VA is very interested and applauds the efforts of the State of New Jersey, and I would like very much to hear about the results of your study. Peter Kahn.

NEW JERSEY STUDY OF DIOXIN LEVELS IN VITENAM VETERANS

DR. KAHN: I'll need that transparency machine. The study that I'm going to present to you was undertaken as a direct result of a meeting held in Ottawa, Canada in May of 1981. At that meeting, Christoffer Rappe of Sweden, whom I had not at that time met, presented the results of the analyses of blood serum of survivors of the Japanese, Yusho disaster. The Yusho disaster, for those who are not familiar with it, is an accident that occurred in 1968 in western Japan.

In that accident rice oil that was being processed from rice in a factory became contaminated by a PCB mixture that leaked from the heat exchange oil that was used to heat the oil during the processing.

The PCBs, in turn, were contaminated by dibenzofurans which are chemically and toxicologically as close to the dioxins as you can get. About 1600 people fell ill in western Japan. Most of the initial illness would have been due to the PCBs

which are pretty noxious in and of themselves. But a considerable number of those individuals remain ill to this day even though it was 1968.

It is now pretty much accepted, not universally but mostly, that the lingering illness is not so much PCB-related as dibenzofuran related. Eleven years after the end of that exposure, blood samples, blood serum samples, were analyzed by Christoffer Rappe in Sweden and found to contain partsper trillion levels of the dibenzofuran that had been present in the rice oil.

I was astonished to hear that it was possible to detect it at those levels that many years later, and immediately realized that it might just be possible to do the same kind of thing on Vietnam veterans who were heavily exposed to herbicides during the war . At least it became rational to try.

I then approached Dr. Rappe who invited me to his room where we polished off a bottle of Seagrams and discussed the possibilities of a research collaboration. In October of 1981, we met again at the International Symposium on Dioxins and Related Compounds that took place in Arlington, Virginia, and we at that time agreed to a collaboration, and planning began as of that date.

From October of '81 till December of '84 we were in the planning stages. In December of '84 we froze the analytical protocol. I'll make some comments about that later, and we then began to study Vietnam veterans.

The project is called the Pointman Project. It's an idea that came up in a brainstorming session. We wanted to call it something. The formal title is rather a mouthful and nobody can remember it. We called it the Pointman Project because of the possibility that there may actually be a connection between Agent Orange exposure and later medical problems.

And in view of the increasing contamination from the civilian environment by a whole host of chloronated aromatic compounds, if we do demonstrate a connection in the case of Vietnam veterans and that extends, then, to the general public, it may turn out that the Vietnam veterans is playing pointman for the rest of society.

My co-authors in the work are Michael Gochfeld who is an M.D. and a Ph.D. in toxicology and a Vietnam veteran and is a Professor in the Department of Environmental and Community Medicine; Christoffer Rappe and his group; Martin Nygren who was completing his Ph.D. and did the blood work; and Maryanne Hansson who did most of the fat work in Chris' laboratory;

Henry Velez, an M.D. and Terry Ghent-Guenther, an occupational health nurse with advanced training, were in charge of our hospital admissions and examinations that were made in the hospital which I'll just describe shortly; and Wayne Wilson who is sitting in the back here somewhere. Wayne -- he left the room. He would.

Wayne Wilson is Executive Director of the New Jersey Agent Orange Commission and appears as a co-author because he was in charge of the actual recruitment of the participants in the study, of organizing the administration of an extensive questionnaire to each potential participant, and in matching our exposed men with the unexposed, and handling all of the logistics of taking care of the men, getting them to the hospital, getting them home again, taking care of their families, and so forth.

He has learned in the space of five years an enormous amount of science. He now thinks like a scientist so he deserves to be on here. What we have selected for study were ten heavily exposed Vietnam veterans, and by that I mean men who handled spray on a regular basis.

We did not include ground troops or any men who simply spent time in a defoliated area. We felt that the likelihood of

finding dioxin in these men was no better than 50/50, if that, at the beginning of the study, and we wanted to load it in the direction of being able to find it. We selected two groups of controls. One group that we called the Vietnam controls. That's the first line. These are Vietnam veterans whose exposure we rank as minimal or zero. We can never be sure of the zero so we call it minimal. We were able to recruit ten such men.

We had wanted to recruit ten veterans who did not serve in Southeast Asia, and these we called the era controls, but for reasons of time and availability of the men and the matching criteria that I'll show you in a moment, we could only get seven of them on stream at the time we wanted to conclude the study.

Our subjects were individually matched in that each exposed man was matched to one Vietnam control and in seven cases a Vietnam era control for age at the time of hospital entry, dates of service in the military, race, ethnicity in the sense of black, white and hispanic, and rank in the sense of officer versus enlisted status. Of course, everything was matched for sex as well, and for obvious reasons.

The research subjects that we obtained were all volunteers. We sought these through a variety of means. Some

were obtained through the mass media, veterans service organizations, community church groups, et cetera. Once a man came to our attention as a potential research subject, we evaluated his exposure status ourselves initially be a detailed questionnaire that covered both military and non-military occupational histories.

There was a small amount of medical history in that questionnaire as well, simply to ensure that we would know whether a man was sufficiently healthy to withstand the rigors of the hospital regimen to which we were later subjected, and a considerable number of heavily exposed men were rejected from the study on the grounds of being unable to withstand biopsy or 24 hours of starvation which I'll discuss shortly.

We were fortunate in having the assistance of the Dick Christian, whom I see sitting over there, in that we pulled the records from the St. Louis Records Center and asked Dick Christian's office to evaluate them, and our men were either "1's" in the sense of minimal exposure or "5's" in the sense of exposure highly likely.

And we are exceedingly grateful for Dick's cooperation. We have learned that you need to put together a large amount of information to really assess an exposure accurately.

Each man was admitted to the hospital. We admitted them in groups of three to six men at a time in North Jersey, and they underwent a substantial medical examination including most of the routine stuff you would expect in any physical examination. As well as we did an exceedingly thorough immunological screen.

That work was done in the laboratory of Ronald Kerman at the University of Texas, and we did an extensive psychological and psychiatric profiling of the men. That all was done locally. None of that data has been collated as yet. That will be done soon.

While in the hospital, we took adipose tissue by liposuction biopsy. We took ten to 20 grams of it from the buttock, by an incision made at the crease line between the buttock and the upper leg.

We fasted our subjects for 24 hours before we drew blood. The reason for this is that dioxin deposits in the adipose tissue. Most of the circulating blood fat is derived from the last two or three meals, and we wanted to increase the likelihood of finding it in the blood. And felt that if we forced the body to consume circulated blood fats from the last two meals, stored reserves would be going down, and this

being done, some of the dioxin present in those stored reserves would accompany them into the blood.

We then took three to 400 ml of blood into heparin anticoagulant, and by the way we took extreme pains to avoid possible contamination of t he sample by plasticizers using the blood drawing apparatus. The bags all contained anticoagulant.

We used the first 10 or 15 ml of blood as a rinse. We rinsed the bags. We emptied them by means of a syringe fork present in every bag.

We then injected our own hand-prepared heparin solution into those bags. The blood was then drawn and immediately packed on ice, and within a few minutes after all men in the group were taken, we removed it to the hospital laboratory where the bags were opened, and the samples were placed into carefully solvent washed glass containers for transport to my laboratory in New Brunswick which was an hour's drive from the hospital.

In my laboratory I centrifuged out the red cells and froze the plasma. We also froze the adipose tissue. All containers were carefully solvent washed and one sample was frozen. They were maintained in that state.

After the samples were frozen, they were taken to an independent referee team of two people. Neither individual was

associated with Rutgers University or with the University of Umea, where the analyses were done. I did not know either individual in advance of their agreeing to take part in this study.

We would simply bring them the samples. They would put their code numbers on specially prepared labels, and they would remove my labels on the samples, with the result that I would get back samples that I now no longer knew which came from an exposed man and which came from an unexposed man.

In this state, the samples were packed in dry ice and shipped to the University of Umea. At the end of the study, Chris Rappe came from Sweden with the results in hand to make sure that everything was to our satisfaction on them, and the results were handed over to the referees before the referees gave us the code.

Of course, once we got our hot hands on the code, we sat at the referees desks in there for a couple of hours getting a quick look at the data, and then took ourselves out for a good lunch.

In the laboratory -- here I don't have a slide -- we had methods validation that we had to undertake for both the fat samples and the blood. In the case of the fat samples,

Rappe's laboratory had participated a year or so ago in an inte laboratory study done by Philip Albro et al. and published in "Analytical Chemistry" in 1985. Eight laboratories participated

Each was given aliquots of standard samples that had been spiked by Albro's laboratory. And so they were all spiked identically. A single material was spiked, and divided into samples, sent to the eight laboratories, and the results were then collated to see which laboratory's methods gave accurate results and which did not, and Rappe's lab was found to have a high degree of quantitative and qualitative reliability.

The also took a number of fish samples and fortified these at three different levels with C-13 containing dioxins, and analyzed and showed that they got those numbers back. They analyzed cow milk fortified at four different levels, getting fat tissue of fat material in there, and they analyzed human milk fortified at four different levels with dioxins to ensure that they got correct results.

So the validation of that has been extensive and has gone on for many years. Until recently when the CDC came on stream with their laboratory, Rappe's lab was the only lab with the procedure for doing blood serum. The CDC now have a procedur that is very similar to Rappe's.

They undertook a validation study in which they took from the blood bank at Umea a pool of homogenized plasma sample of considerable volume which contained an unknown level of ordinary dioxins and furans. PCDD means dioxin. PCDF means furans. I put "natural" in quotes because they are not natural compounds. But these what they were looking at is the background that seems to be present in all individuals by virtue of residence in an advanced industrial company.

The idea was that if you divide this into 12 aliquots, which is what they did -- I didn't write 12 aliquots on there. I should have -- and you spiked these aliquots with carbon 13 dioxins and dibenzofurans, you used the recovery of those carbon 13 samples as a way to quantitate the amount of natural isomers present and if you do this on 12 samples, you should get the same answer for all 12 samples.

They spiked at four levels, ranging from .018 part per trillion up to .58 part per trillion with the series of seven compounds shown here: tetradioxin, tetrafuran, pentadioxin, a hexadioxin, a hexafuran, heptadioxin, and octadioxin. These are all C-13 as opposed to C-12 isomers.

Three of the 12 samples were spiked at each level, and the recoveries were then used to calculate the amount of

the natural isomer present those samples.

DR. KLAVITER: What is the percent of recovery?

DR. KAHN: 100 plus or minus 30.

DR. KLAVITER: 100 plus or minus 30?

DR. KAHN: Well, occasionally you get a high one. Occasionally you get a low one.

DR. KLAVITER: I don't understand the range. Is that range for each of the compounds?

DR. KAHN: Yes. Okay. The cleanup of these samples for blood is extraction by a modification of a classical method of Bligh & Dwyer for removing fat from tissue samples which is a chloroform methanol water extraction. This is just a brief outline of it.

There is then a silica column which takes out most of the fat, the dilution of the compounds that we're interested in, on to normal hexane, and then there is a carbo-packed C-column which takes out the dibenzofurans and the dioxins. The validation of the carbon-packed column is by Markland, et al. from the ACS Miami symposium a year or so ago.

The analysis is by high resolution GC mass spec, using Supelco 2330 and 2331 columns on the GC, and a BG-7250 mass spec instrument at a resolution of 5000 to 8000.

The spikes in this case for the unknown samples were Carbon 13 TCDD and Carbon 13 octadioxin. Bear in mind that the analytical method was frozen in December of 1984, and since then there has been considerable developments. These were the C-13 isomers that were readily available for use at that time.

If we were to do this now, we would be using a different set of isomers, a considerably more extensive one. And I'll point to a problem with one of the isomers a little later that we got into because of the spiking protocol. The ion curves that you get typically from the mass spectrometer for adipose tissue in the top right -- it's a little blurry -- you can see here that you get nice clean peaks from TCDD at the top, in the penta and hexafuran and dioxin respectively in the middle, and the pentadioxin at the bottom. The noise level is really quite good.

There is, of course, correlation of these with retention times of the known standards. Every third sample that is analyzed when the unknowns were in progress was a laboratory blank. And here are typical ion curves that you would get in blood showing the same, most of the same set of compounds as dioxin on the top, pentafuran in the middle, and a pentadioxin

at the bottom. We did a nice clean spectra.

The validation study on the blood gave the following results. The top line is a little faint, but you can see that the agreement across the board on these is generally very good. These are the 12 samples from the same aliquot of pooled plasma, and this is from Rappe's talk that was given the day before my talk in Japan.

So the validation here worked out quite well. We're reasonably pleased with this. The CDE put out a similar validation with virtually the same results in their study.

So what have we for results? In the case of adipose tissue, for TCDD, we have 11 parts per trillion. The left bar where there is a 30 -- for example, here -- the left bar is the exposed man. The middle bar is the Vietnam control, and the right hand bar, rather small in this case, is the Vietnam era control.

We were missing the Vietnam era control for trios one, seven and ten. Here we have a Vietnam control which is exceedingly low. But there was a control there, and there was a number. It just doesn't appear very well on this graph.

The upshot of this is that in nine of the ten cases -- this being the only exception -- the Vietnam exposed man

exceeds the controls. And because of the matching, individually based matching, even though the excess here is very small and if this pair of individuals were to be repeated, if there is a reasonable likelihood they would come out the other way around, over the entire group of ten men, the likelihood that nine of the ten would come out in excess of their controls by chance is very, very small.

One of the things that we have begun to look at, but have not yet fully analyzed, is the isomer ratios, the ratio of dioxin to various other isomers in the group that we have found in these materials, and if you look at the isomer ratios, we do find, for example, that this one is high, and this control is low. The same thing is true here. The same thing is true here But I'm a little uncomfortable with the isomer ratios yet because in the case of the dibenzofuran, 2,3,7,8 of furan as an isomer ratio, the furan itself -- the level of that is exceedingly low. And laboratory error begins to be rather a large factor in furan level and the ratio becomes unreliable.

Nevertheless this is really quite striking. The same thing in blood looks like this. We had one failure of a blood sample on an exposed man. In number five, the exposed sample we just had all kinds of laboratory problems with that,

and there was basically no data to be had from that sample. So that we only have the Vietnam control and the Vietnam era control here. So we only have nine pairs that we could compare, and in six of those nine pairs, the exposed man exceeds the controls, and the probability is not quite as good as in the case of adipose, but it's certainly very good, indeed.

It's also of interest that the men who were high in the adipose are also high here. And I'll show you that correlation separately later.

These are the averages for TCDD alone. Other isomers, we haven't gotten to yet. In the case of adipose, with an "n" of 10, on our exposed have a value of 41.7, and the Vietnam controls with 5.1, 3.2 and if the controls are pooled, these 10 plus these 7, the average is 4.3 with a standard error of measurement shown here.

In the case of blood, we get virtually the same number here, and by the way the New York Times got this wrong. They put 48. The number isn't 48. Here is our full controls at 5.7. The ratio here here is on the order of ten to one, not quite in this case, but about ten to one in that case.

If we now look at the other isomers, we've found a total of 13 isomers in these men, TCDD being one of them.

CHAIRMAN SHEPARD: Excuse me. But those fat analyses are lipid weight?

DR. KAHN: No, that's per gram tissue weight.

CHAIRMAN SHEPARD: Of the blood ones?

DR. KAHN: The blood one is for gram fat.

CHAIRMAN SHEPARD: On a lipid basis then. I understand

DR. KAHN: Yes. The blood is on a lipid basis. The fat tissue is on a per gram tissue weight. Okay. I think we would have been better off in the fat case if we had done it per gram tissue lipid, but it turned out the CDC examined that question, and they got their best correlations if they did it per gram tissue as opposed to per gram tissue of fat. That's for adipose only.

For blood, they did the same thing we did. They measured the amount of fat. Okay. Here we have all the other isomers that we have found in the samples. We'll look at the octa and the other over there in a moment. They all don't fit on the screen at the same time. Okay.

TCDD is here, where "X" represents the exposed man; "V" represents the Vietnam controls; and "E" represents the era controls plus or minus standard errors of the mean. Clearly this is far outside the bounds of these.

If you look at the others, here are the furans, all about the same. Here is another isomer of pentafuran, all about the same, and the same thing is true across the board. We certainly don't have large excesses in the exposed members of the controls in any of these cases. Likewise here in the case of others on a different scale.

This is consistent with the notion that these compounds are present in everyone regardless of service in Vietnam, regardless of the nature of that service in Vietnam. Whereas this one -- although present in the background, as expected. It is now no longer controversial -- it is present in excess in our exposed people.

Here I'm afraid I don't have quite as clean a slide for you. This is the same thing in blood. This was handmade from a graph. A good one has been made, but I haven't got it made into a transparency yet. Here you see in the same order the same compounds across as in the previous one. There is TCDD. Here are the controls.

And for the most part, you can see there is no excess in the case of the exposed men versus the unexposed with one or two exceptions. One exception here in the octa where the exposed appeared to be higher. We had a recovery problem in

the case of octadioxin on some of these blood samples, and that may be responsible for this. This is something that will probably have to be looked at in further detail.

We're not quite sure what this is due to. We think it's a recovery problem. Here's one in which the exposed exceeds the Vietnam era controls, but does not exceed the Vietnam control. We think this also might be a recovery problem, but we're not quite sure. We didn't quite know what to make of that one. It certainly is nothing on the scale of this.

Okay. Now, the correlation of blood with fat. You can see a hint of us this already in the two bar graphs that I showed before in which the same men were high in both. I'm going to present this to you in two ways, the first of which is the direct correlation in which we plot versus fat levels in parts per trillion, and this is the gram blood fat, and this is per gram tissue.

Okay. An open circle is an exposed man. A dot, a black dot is a control. There were nine exposed that we could use in this comparison because of the failure of the analysis in one of the bloods.

And what is seen here is that if you draw a box at 15 parts per trillion on both axis that box contains all 17 of

the controls and three of the exposed. Outside the box, we have six additional points for the other exposed men. There are no controls outside that box.

Now, I'm going to come back to this in a moment. So I'm just going to set it aside where I can get it because I will have one more comment about it. These data are not normally distributed, and so to put a least square's line through that, and this is the line that I had there, is really not legitimate. So what we did is we did the log/log transform of this and plotted that in these squares with my trusty Apple computer, and this is the least square line that fits all of these data after the log transformation.

These are the 95 percent confidence limits on these. Now, there were 26 data points that we could use in this analysis nine of exposed and 17 of controls. If you include all of the data points, the correlation coefficient in the log/log plot, it's .72. And for this sort of work, I'm told by people who do it that is itself very good.

However, that includes a number of data points, specifically four, in which the values are between zero and one part per trillion. That is the range of the data in which the errors are likely to be largest. That is also the range of

the data in which small changes are are going to have a rather large effect upon the logarithmic value. So if those four data points are dropped out, and CDC did the same thing for their data, we're now down to 22 data points, and the correlation coefficient goes from .72 to .89. And that is what is shown here.

These are the 95 percent confidence limits at .89. You can see we have a really nice correlation here. Now, I'd like to go back to the previous one for a moment, if I may, and point out something that I want to raise in the conclusions.

Clearly, whether you take this at 15 parts per trillion or 20 parts per trillion, I don't care. It doesn't really matter. Anywhere outside the box, wherever you choose to put it, would classify a man as heavily exposed by any definition.

However, it would not be correct to say that a man who is inside the box can be classified solely on the basis of dioxin measurements as unexposed because the exposure on these men was high.

Why they are inside the box is an unknown question. It could be that the particular Agent Orange they were exposed to was relatively clean. There were after all a dozen or so manufacturers, and even within manufacturer, it varied batch to

to batch. Also possible is the likelihood that people differ in their excretion rates. And you could have someone who is a high excreter. In that case, the isomer ratio of dioxin to one of the isomers might be useful when you had begun to explore pattern recognition analyses for that purpose.

So that one has to be very careful later on down the road, particularly, as people begin to use these measurements for extablishing epidemiological cohorts that you don't use a low measurement as a sole basis for classifying person to the unexposed cohort.

Conclusions. Clearly Vietnam veterans who were exposed exceed the matched controls in dioxin level even though it's 15 to 20 years since the end of that exposure. I think there is no arguing with that conclusion, and that is consistent with what the CDC reported on people from Missouri although the time period there was in many cases somewhat less.

It seems likely that from these results -- in fact, highly likely. I can't think of any other way to explain it -- that the high levels in the exposed men is due to their war time exposure to Agent Orange. Otherwise, the other isomers would also show the same kind of variation and they don't.

There is an excellent correlation between adipose

tissue and blood levels which makes it almost certain, virtually certain that within a short time blood sampling will replace fat sampling. I don't think we're quite there. I don't think we're quite at the stage where blood sampling replaces fat sampling. We've a few "i's" to dot and "t's" to cross.

And the results support the statement that highly exposed men can be distinguished from all others both by blood and by adipose tissue testing, and I think within a short time, six months to a year, we'll be able to use these methods as a way of establishing cohorts for epidemiological studies. That ends my presentation.

CHAIRMAN SHEPARD: Thank you, Peter. Any questions? Mr. Carra?

Mr. CARRA: If I remember correctly, the charts that you showed had plus or minus one standard deviation; is that correct?

DR. KAHN: Standard error of the measurement.

Mr. CARRA: Standard error. Did you do any statistical testing on this to show significance --

DR. KAHN: Yes, we did.

Mr. CARRA: And on the TCDD?

DR. KAHN: Yes. Every one of the numbers have

been tested by various statistical analyses. In the case of simple binomial distribution for greater than or less than, it comes out highly significant.

Mr. CARRA: In terms of the nine, the number of -- now, what about the levels, though? It would appear that they might not come out to be statistically significant.

DR. KAHN: They do come out to be statistically significant. I don't have the numbers in front of me. They will be in the manuscript.

Mr. CARRA: And that's after transformation?

DR. KAHN: Yes.

Mr. CARRA: Okay. Because you showed the graph without transformation.

DR. KAHN: Yes, I did.

Mr. CARRA: Okay. All right.

DR. WALKUP: Has this been accepted for publication, or is going to be appear soon?

DR. KAHN: It's being submitted for publication in the very near future. What I've done -- see we presented this at the International Symposium in Fukuoka as a preface to writing a manuscript, and I made careful notes of some of the comments people made, and I incorporated that into the

manuscript which will be submitted very shortly.

DR. WALKUP: Do you have copies of the paper you presented there?

DR. KAHN: There are no written copies. See the way you do this sort of thing is you present a verbal talk or a poster on the wall, and we did both of those because we were required to present a poster. And then based on that you write the manuscript and send it in, and that is what is happening right now.

So what will happen next -- I don't give out anything in writing until we have been through peer review at a journal. And as soon as that has happened, preprints will be made available if the journal permits and if anyone wants them.

DR. WALKUP: What would be your guess about what it's going to take for other members of the scientific community to accept your conclusions as gospel? What holes do you see in what you've gotten, what should be replicated?

DR. KAHN: Well, the CDC have already replicated basically the same results that we have. They looked at 50 heavily exposed people from Missouri and 50 controls. Their heavily exposed were drawn from residents of Times Beach, people who were involved in the horse arenas where waste was

always sprayed, and workers from the factory in Verona where the material was made that ended up at Times Beach and horse arenas.

And they presented it in the same program we did in the morning. I was in the afternoon, and they have exactly the same kinds of results we do, exactly the same numbers. Some of their heavily exposed people are higher than ours, but the exposures are more recent, and also more massive in some cases.

DR. WALKUP: It either that study or yours, was there any --

DR. KAHN: Excuse me. Their correlation coefficient on a log/log basis was .97 which is actually staggering. And they didn't use 24 hours of starvation. They only used 12. That's one of the things we're going to investigate, the necessity of starvation.

If you don't have to starve people for 24 hours it's a whole lot easier. I'm sorry. I didn't mean to interrupt your question.

DR. WALKUP: Did you or they look at possible relationships between the health problems of the people in the study from the different groups?

DR. KAHN: We have all of that data. For example, the next thing that will be correlated once this manuscript is

in the mail, we turn our attention to the immunological data which we have quite a lot to see if any of that correlates with either exposure status or dioxin level. We do these analyses separately.

Following that, and that will be published regardless of what the result is, positive or negative -- following that, we'll take the rather large amount of psychological and psychiatric data that we have which is easily amenable to analysis, and that will be done next. And then right after that, we'll have a look at the health effects data of which we have a great deal on these men.

I don't think we're going to see anything in the health effects data for two reasons. One reason is the number of men is rather small to find any health effects. Secondly, we biased the sample against the ability to detect health effects by excluding heavily exposed men who were severely ill for ethical reasons. I wasn't going to a surgical biopsy and starve a seriously ill man for 24 hours.

DR. WALKUP: Congratulations. I've been wondering what you've been doing all these years.

(Laughter.)

DR. KAHN: Sometimes I wonder also. Yes, a question?

DR. KLAVITER: The correlation between the adipose and the blood tissue samples is very nice.

DR. KAHN: I hadn't expected any of this.

DR. KLAVITER: Yes. I guess it would be safest to assume that you would see some variation. After all, they're different tissues.

DR. KAHN: Sure.

CHAIRMAN SHEPARD: Please identify yourself. We are departing a little bit from tradition, and I think under the circumstances that is okay. If I'm not mistaken, you're one of the chemists from CDC?

DR. KLAVITER: Well, I have to say that you are mistaken, Mr. Chairman and members of the committee. I very much appreciate being able to attend and take a moment or two of your time.

DR. KAHN: Tell us your name.

DR. KLAVITER: I'm Roy Klaviter from the Michigan

Department of Public Health. I'm a member of the Center for Environmental Health Sciences there. And as you can tell, a person that fusses with laboratory data and tries to understand it like yourself.

The percent recovery that seems to be the most important to me here is that which you got specifically for 2,3,7,8 TCDD because that is what you're following through the tissues and so forth. It would be reassuring to those of us who are also laboratorians to see that specific number.

DR. KAHN: We'll have that in the manuscript.

DR. KLAVITER: That specific number.

DR. KAHN: Chris Rappe has most of that stuff and we'll be putting it in the manuscript when we publish it. But in a 15 minute talk, I couldn't do all that.

DR. KLAVITER: But the limits -- you're telling me that those recoveries which you got were within acceptable limits.

DR. KAHN: Yes.

DR. KAHN: Certainly within what's normal for the field.

DR. KLAVITER:

Did you try a saline solution that was stored in those containers treated in the same way as the samples to check for plasticizers and plastics?

DR. KAHN: Only did it once. I didn't try to reproduce it. Nothing there.

DR. KLAVITER: But you can say you did it.

DR. KAHN: Yes. Good point. And we also ran a laboratory blank, method blank every third sample. Yes?

Mr. CARRA: In an EPA study that we've heard about on adipose tissue that one day might get done that we're considering doing some matching, have you looked at the efficiency of the matching, the things you matched the samples on?

You selected certainly factors to match on, and I'm wondering whether any analysis was done as to whether those were good selections because we would be doing -- the protocol that we proposed awhile ago on the adipose tissue analysis lists the archive adipose as similar to yours.

But I think what you match on might be different, and I'm just wondering --

DR. KAHN: Well, one of the factors that seems to be

especially important is age. One of the papers that was presented at the Japan meeting is that there is a steady increase with age and the background that are found in the normal population. In actual value, there is so many PPT per decade of life that are in there. So I think age is an important factor.

Mr. CARRA: There is also a service date or something like that in your matching, is that right?

DR. KAHN: Yes, we did match on that. The reason we matched on that is we wanted to ensure that time since exposure was roughly comparable and with reasonable limits. I think the half life is going to turn out to be in the human body is going turn out to be on the order of five to eight years, five to ten years for human beings. So that if you're within a couple of years, you're all right.

We initially started out matching on branch of service and discovered that it was not possible to match the Vietnam era controls for that. We just couldn't get the men to do that. And matching, let me tell you, is a pain. That was the most painful part of this procedure. And that is responsible for taking so long. Our first group was December '84. Our last group was July '86. Wayne Wilson bore the brunt of every bit of this matching. He did it.

Now, the results of the matching were subject to review by a committee on which Wayne and I and three others sit, and all the decisions of the committee had to be unanimous. If anyone vetoed a person, the person was out. Nevertheless, Wayne deserves enormous credit for the burden of work done matching.

We have two to 3,000 men in our files in order to get 27 people.

CHAIRMAN SHEPARD: Did you draw blood on the people prior to fasting? I think it would be very interesting to have some data that would tell us what the effect of fasting was. I know it's expensive.

DR. KAHN: That's next. You see we couldn't do it in the context of the study as of the time we froze the protocol because we needed three to 400 ml of blood, and you can't do that twice on a guy in 24 hours. You starve him in the middle.

CHAIRMAN SHEPARD: I understand.

DR. KAHN: That's a bit much. But what's happened in the interim is methods development has gone on, and we now need about half of that.

CHAIRMAN SHEPARD: That's why I asked the question, whether you did the analysis. Did you draw some blood so that

you can go back now and do it?

DR. KAHN: Well, what we're going to do is, you see, you have to do them both at once. So we are bringing the men back, the heavily exposed men back.

CHAIRMAN SHEPARD: No, I mean did you draw any blood prior to fasting the individuals and store it?

DR. KAHN: No, we did not. See we only had them in the hospital for three and a half days. There was no way I could two and a half units of blood from a guy in that amount of time under any circumstances.

CHAIRMAN SHEPARD: I'm not suggesting that you take that much blood. Techniques are being refined now to the point that you can do it on much smaller samples.

DR. KAHN: Yes, all we're going to do now is the equivalent experiment. We're bringing the men back. We're going to bleed them first, fast them, and bleed them again. But we're bleeding half this amount, maybe even a little less. So we'll get the answer to that question. That's one of the things we want to do right away.

One of the other things we want to do right away, well, soon, is we want to start looking at a couple of other targeted groups. One in particular we want to look obviously

at ground soldiers since these were spray handlers. We would like to recruit, and we are going to hopefully negotiate this with Dick Christian, who is hearing it now for the first time, we would like to look, for example, at the ten most exposed ground soldiers we can get our hands on carefully matched against controls using the same kinds of procedures we've already worked out.

The second group that we're very eager to look at is women. We would very much like to recruit ten women who are the most heavily exposed women we can lay our hands on, possibly using Dick Christian to help us find them, and match them against controls in the same way that we have done for our men, and see what we find there.

These are small targeted studies that we want to have a go at. We think we have the ability to organize those studies. I'm sorry. Is there a question?

MR. CONROY: Peter, the study took place obviously over a couple of fiscal years.

DR. KAHN: Yes.

MR. CARRA: Do you have any ballpark ideas as to what the entire study cost?

DR. KAHN: Yes, I do. Our entire research budget since

the inception of this project has been $377,000. That's over five years. I'm not salaried on the project. I'm paid as a faculty member and so is Chris Rappe. So my salary doesn't come out. I do this as a volunteer.

I would be pleased to see anyone who has further questions afterwards.

CHAIRMAN SHEPARD: Thank you very much, Peter. Again, I congratulate you on this very interesting piece of work, you and all your colleagues. For those who are not aware of it, I think this is the first time where this matching has been completed. As you know, CDC is doing the same thing, but I think that to New Jersey's credit, they're the first to report on their efforts.

I think we'll take about a 12 minute break now. If you will all reconvene at quarter of 11, we'll be happy to hear from Dr. DeStefano from CDC.

(Whereupon, a short recess was taken.)

CDC AGENT ORANGE STUDY

CHAIRMAN SHEPARD: We're very pleased to have with us on the program today Dr. Frank DeStefano who is known to many of you. He's been very much involved in the CDC epidemiological efforts related to Agent Orange, the Vietnam experience, and he has very kindly consented to give us an update on the status of

things at CDC. Frank.

DR. DeSTEFANO: In the next half hour or so, I'll try to update you on the epidemiological studies that CDC is conducting relating to Vietnam veterans. As you may know, currently we have ongoing what we call the Vietnam Experience Study. This study compares the health status of a group of Army veterans who served in Vietnam with a similar group of veterans who served during the Vietnam era, but not in Vietnam. They would be veterans who served either in the continental United States, Germany or Korea.

The purpose of this study is to address a question that was raised earlier about possibilities that other exposures in Vietnam, not just Agent Orange, may have had some impact on health. So this study looks at more or less the whole Vietnam service experience for Army veterans who were below the officer ranks.

The study began with a random selection of participants. The sample was drawn from accession numbers at the National Personnel Records Center. Over 18,000 veterans were identified as eligible for this study, and these broke out almost evenly between Vietnam and non-Vietnam veterans.

A lot of the abstracting of service characteristics

eligibility criteria was performed by the Environmental Support Group of the Army. This is the agency which does most of the record reviews and has the expertise in military records handling and review. As you heard from Dr. Kahn, they did some of the exposure assessment in their study.

So for the 18,000 eligible participants several government agency files were searched that may have information on veterans that have died: Social Security Administration, the National Death Index, Internal Revenue Service, and the Veterans Administration BIRLS files. These were all searched, and veterans who had died were identified, or for those that were not known to have been dead, current locating information was obtained.

Those who have died form part of the mortality study component that compares rates of mortality as well as specific causes of death. That study has been completed, and the report should be issued in November.

Those veterans who were not determined to have died, we had their names forwarded to the interview contractor, Research Traingle Institute in North Carolina which does the locating and contacting of the veterans for participation in a rather extensive health interview.

Over 15,000 veterans have thus been contacted and participated in the interviews. A subsample of interview participants were then selected to undergo an extensive two-day medical and psychological examination. All the examinations are being done at Lovelace Medical Foundation in Albuquerque, New Mexico.

Examinations were completed in September, so both the interview and examining process, at least the data collection phase, has been completed, and we're now in the process of data analysis. We have a target date of issuing the reports in late summer of fall of next year.

Basically the Vietnam Experience study, the process itself went well. It went on schedule. I think our participation rates exceeded expectations, and we should have those results reported within the next year.

The other large study is the Agent Orange study. It is the one that focuses more specifically on health effects of exposure to Agent Orange while in Vietnam, and as you probably know, this study has been on hold since about last December.

When the epidemiological studies first started, a lot of the initial work went into how to assess exposure to Agent Orange among

ground troops. The initial design was always to use available records to somehow establish exposure on the basis of frequency of number of times a veteran was within close proximity to known Agent Orange applications.

The CDC submitted to the Office of Technology Assessment of the Congress, which has oversight responsibility for our study, two reports in the spring and fall of '85. There were problems identified in determining exposure and Congress did not feel as of last December that sufficient progress had yet been made in coming up with a reliable way to assess exposure using the military records to proceed with a full-scale Agent Orange exposure study at that time.

So the study was placed on hold. In the interim, in the past year, a lot of activity has gone on, much of it directed or carried on by the executive branch's Agent Orange Working Group. There have also been several new findings and developments which impact on the conduct of this study.

Probably the most important is one which you have just heard about by Dr. Kahn: the ability to measure dioxin levels in blood in minute quantities. And the development of that technology, I think, has really altered the whole picture on how we might approach an Agent Orange

exposure study. I'll give you the bottom line of where CDC stands now, and then some of the background of what has happened this past year, and give you an historically flavor anyway of how rapidly information was coming out, and the sort of environment we were operating in in formulating our plans.

Since dioxin can be measured in blood quite reliably now, we have proposed doing a validation study on several hundred veterans to measure dioxin levels in their serum and see how well that correlates with military records assessments of exposure and also compare Vietnam veteran levels with a group of non-Vietnam veterans who served during the same time.

I'll just go into some of the background of what has happened and some of the findings.

Once the study was placed on hold, the Agent Orange Working Group formed a sub-panel of its Science Panel to review issues related to Agent Orange exposure, methods for determining exposure using available records, et cetera.

As part of that evaluation, the Environmental Support Group was asked to conduct a pilot study of selected battalions to determine location information and how many men might have

been frequently in close proximity to Agent Orange applications.

Prior to this pilot study, one of the problems had been that for a substantial number of days a location was not available at a company level to be able to place companies on that day with a specific location in Vietnam relative to where herbicide applications had occurred.

As part of the pilot study, ESG was able to develop methods to fill in the missing days, for most of the missing days for nearly all companies in the seven battalions.

Once the locations were filled in, they compared the company locations with herbicide application records to determine a frequency distribution, of number of men who were within so many kilometers within so many days of herbicide applications during their tours in Vietnam.

That pilot study was completed in April, and involved seven battalions. The subpanel of the Agent Orange Working Group Science Panel reviewed those findings as well as other information pertinent to exposure assessment.

They had several meetings and deliberations with military experts and others, and their final recommendation was that "... any study of grounds troops which is dependent upon military records for the assessment of exposure to herbicides not be

conducted without an additional method to verify exposure. The reasons for this were mainly two problems. One, troop dispersion, and two, incompletely documented sprays.

The review determined that all available records were being used and being used appropriately, and that locations at the company level could be determined on almost a daily level.

Still once you had all that information, it was evident that the company level was the smallest unit at which you could place a veteran, and that frequently you would have several location points reported for the same day, either because companies moved around, or because sub-units of a company were in different locations.

So it was not uncommon to find troop dispersion at a company level for up to 20 kilometers. The other problem with available records had to do with the availability of spray records, particularly those from either helicopter or ground application.

The subpanel felt that documentation of sprays from fixed-wing aircraft, so-called Ranch Hand sprays, is complete and adequate. But expert opinion was that the sprays from around perimeter bases, helicopter sprays, and ground applications are probably substantially under-documented

although all the documents have been obtained that are available. It is felt that these sprays were not fully reported. And interestingly enough, as part of the pilot study that was done, it appears that most of the times the veterans were in close proximity to spray applications occurred near these helicopter and ground applications. So it looks like a major part of potential exposures may not have been recorded.

That left the dilemma of exactly what to do with these sprays. I mean there was some nagging concern that, well, maybe they're not complete but no one knew how incomplete they may be. The records could still be useful for epidemiologic purposes.

Fortunately this summer, as we have heard, the serum measurement was developed, and it allows for the independent verification that was called for by the subpanel.

So that's where we were with the records and the need for verification. Also, there has been a lot of new research that just came out towards the end of '85 and in '86 which lead us to believe that dioxin levels can still be elevated in persons who may have been exposed 15 or 20 years ago in Vietnam.

When the protocols for the epidemiologic studies were first put together in 1983, the issue of measuring had come up is tissue dioxin as a biological marker of exposure had been considered.

At that time I think most experts and reviewers who evaluated the protocol felt that probably the half-life was about one year. That came mainly, or almost exclusively, from extrapolation of animal studies. I don't think anyone at that time was as prescient as Dr. Kahn, who in '81 had the notion that maybe dioxin would still be present in the body 15 to 20 years later based on the furan work. But people who were reviewing the protocols and developing at that time in '83 thought that the best guess was a one year half-life for dioxin in human tissue. If that was the case, 15 to 20 years later, only a negligible amount should be available. Based on this belief a tissue measurement strategy was not pursued.

There have been a couple of studies in this past year--

DR. KAHN: You know the results had been published by '83.

DR. DeSTEFANO: Pardon me?

DR. KAHN: The initial results had been published in '83.

DR. DeSTEFANO: Yes, I realize that. And also PCB's half-life information was available at that time. At the time experts

and reviewers, taking all available information into consideration, felt their best estimate was about one year. I'm sure there were arguments about that. If you look at the furans, they are very similar to dioxins. If you look at the PCBs, they're very similar, and their half-lives are on the order of years.

This past year at least some studies have come out that suggested the half-life is five years or more. And also prior to the New Jersey results, there were a couple of other studies that suggested that dioxin levels would still be elevated in Vietnam residents or veterans 15 to 20 years after exposure.

In 1985, Gross and his colleagues published a small study in which they obtained adipose tissue samples from about 23 self-selected Vietnam veterans who believed they had been exposed to Agent Orange and were suffering adverse health effects as well as from ten veterans who had not been exposed to Agent Orange. The classification was done on likelihood of exposure, and interestingly enough, three men who were in the highest exposure category had the highest levels of dioxin. In two of them the levels were 35 and 99 parts per trillion. In one the level was controversial because in one sample there

was poor detection of the internal standard, but a sample from the same veteran run by another lab detected a level of 20 parts per trillion.

For the other levels of exposure, the dioxin levels were not different from the controls. They were in the 5 to 6 parts per trillion range which is the level that is basically the background level in an industrial society.

There was a hint there that dioxin still persists in Vietnam veterans. The veterans in the study all had exposure eight years or more prior to the time their samples were taken. So eight years or more, in 15 to 20 years, there still might be detectably elevated dioxin levels.

Also, in '85, Schecter and colleagues reported a study of Vietnam residents. They were able to obtain some samples from North and South Vietnam. These were surgery patients and autopsy cases, and they obtained 15 specimens from the south. They reported that these people lived mainly in outlying provinces away from Saigon, and they detected dioxin in 12 of the 15, the average was 28 parts per trillion.

They also obtained nine specimens from the North Vietnam. These were people who had never been in the south and had no known herbicide exposures. No dioxin was detected in

any of these nine people. The detection limit was about two or three parts per trillion, and it may be the case in a non-industrialized society that you would not detect dioxin.

Then just this past September, the New Jersey findings were released, and these provide, I think, dramatic evidence for both the half-life and persistence of dioxin as well as the high likelihood that some veterans were exposed to high enough levels of dioxin that they still have considerably elevated levels in their bodies at this time.

Given all that information last spring, we still had the problem that almost exclusively dioxin measurements relied on measurements in adipose tissue which does require a surgical procedure to obtain, with attendant risks of surgery and incision, et cetera. Certainly, ethically and practically it would not have been easy to obtain adipose samples in any kind of large study.

This past summer, the Environmental Health Laboratory at CDC completed work on development of their method to measure dioxin in blood, or the serum fraction of blood.

They worked, or had been in contact with and collaborated with Dr. Rappe in Sweden. As Dr. Kahn said, their methodology is very similar. As you have heard, they conducted a study,

a validation study of their serum measures using some samples that they got from Missouri persons exposed at Times Beach or in occupational exposures, et cetera. They got 50 paired samples, fat and serum, and quite frankly their correlations were astounding. There was almost a straight line correlation between the fat levels and the serum levels. On a lipid weight basis, the correlation coefficient was .98 which means that whether the fat is in adipose tissue or whether it's in serum, there is virtually a one-to-one correspondence of the dioxin concentration.

They've also worked on refining their methodology to the point where now they're fairly confident of being able to detect 2,3,7,8 TCDD at the one part per trillion level in about 75 milliliters of serum, which would require about 150 milliliters of blood.

So with this available, it will at least open the possibility of using the serum measurement of dioxin as a validation of exposure assessment methodologies for an Agent Orange study. We have developed a protocol to do just that. We are proposing studying about 400 Army veterans who served in III Corps area of Vietnam in 1967 and 1968. We would study two groups based on military records estimates

of possible exposure. A high group would be veterans who on several occasions were within a couple of kilometers of a known herbicide application within one week of the spray, and a low group who have no such documented exposures.

We plan to use similar procedures as were used in the Vietnam Experience Study in terms of tracing, locating, contacting veterans, and inviting them to participate. We propose obtaining the blood specimens at the Lovelace Medical Foundation in Albuquerque for several reasons. The mechanisms are set up. We would be able to provide the veterans a service which we feel is important, to provide them with a medical examination, and it also is an incentive quite frankly for them to participate.

The ultimate goal of this study would be to compare the serum dioxin levels with the exposure estimates derived from the troop location and spray data, see how well they correlate, and, depending on those results, make a decision on how to proceed with a full-scale study.

The protocol, before it can be implemented, needs the approval of two main groups. The Agent Orange Working Group reviewed the protocol at the end of September and gave unanimous approval. In addition, they recommended that we add a group of non-Vietnam veterans and obtain blood samples from non-Vietnam

veterans so we get a good idea of what the distribution of dioxin levels would be in a similar group of men who almost certainly were not exposed to Agent Orange while in the Army, with the concern being that even with our high and low groups, if we find no difference between the two groups, could that have been due to such extreme misclassification that both groups could have been high levels that the levels are similar in the two.

So the non-Vietnam group was added to address that question. The other group that needs to review and approve this protocol before we can begin is the Office of Technology Assessment. Their advisory committee is due to meet on the protocol next Tuesday, October 27. Once approval is obtained we are set to begin the validation study almost immediately. If we get approval within the next couple of weeks, we think we could have sample collection completed by April of '87, and an analysis and write-up of the results by June for review and consideration of how to proceed with a fullscale study.

Now, I would like to make some points before I close. First of all, I would like to stress that we are measuring dioxin levels as a marker of Agent Orange exposure in this validation study.

The validation study is not designed to detect "biologically meaningful differences in dioxin levels."

First of all, we don't think we can define "biologically meaningful" at this point because dioxin concentrations at which adverse health effects occur in humans are not known presently.

Second of all, our exposures would have occurred 20 years ago, and the half-life is not known precisely enough to be able to extrapolate dioxin levels now to what they might have been 20 years ago at the time of exposure.

I think at least theoretically you have to leave open the possibility that some adverse health effects from Agent Orange could have been due to some of the other components, particularly the active ingredients 2,4 D and/or 2,4,5-T.

In this case although all of the Agent Orange mixtures were contaminated to some extent with dioxin, you cannot be certain that it was dioxin that could have caused all of the health effects.

So for those reasons, it's difficult for us to say what is a biologically meaningful difference at this point. We are doing a study to detect a difference as a marker of possible Agent Orange exposure.

There is another key question in this whole issue and that has to do with the half-life of dioxin. I think the evidence is mounting that it's five years or more. How much more who knows, but it's also not known if it could be three years. Who knows? It's based on scanty evidence thus far, most of it indirect, and there has only been one person who has ever had serial measurements -- and this investigator actually did ingest a dose of radioactive dioxin and did serial measurements over the ensuing months, and the half-life extrapolated out to be five years.

But as one of our reviewers on the Agent Orange Working Group Science Panel stated, he is not very comfortable with a sample size of one. But I think that fortunately there is an exciting opportunity still present to be able to get a precise estimate of the half-life in collaboration with Ranch Hand. The Air Force knows about our methodology and are interested in measuring dioxin levels on some of their participants, the Ranch Hand study being the Air Force study of Air Force veterans who flew the fixed-wing aircraft or loaded the aircraft, or cleaned them out, the aircraft that sprayed dioxin.

They have 20 cc's of frozen serum on a number of their study participants which were collected five years ago. So if they can obtain some specimens now, they will have two

points in time separated by five years which should be --

DR. KAHN: We're going to be doing the same kind of follow-up.

DR. DeSTEFANO: Pardon?

DR. KAHN: We are going to be doing the same kind of follow-up.

DR. DeSTEFANO: That's good. When would your follow-up? How long has it been since --

DR. KAHN: Well, our first men were December '84. But our last men were July '86 .

DR. DeSTEFANO: So for the ones from '84, if you did them now, you would have almost two or three years on them. That's crucial information to get right now to be able to try to precisely estimate what the half-life might be.

I just would like to conclude that this has been certainly an exciting year with a lot of new developments in the area of dioxin research in general, and for the CDC Agent Orange projects, in particular. There have been several important developments which have opened the possibility of obtaining scientifically acceptable answers to the Agent Orange exposure controversy.

And I will conclude with that and take questions.

CHAIRMAN SHEPARD: Thank you very much, Dr. DeStafano. Are there any questions from members of the committee?

DR. WALKUP: Are you able to talk about the mortality study at all yet? Do we have to wait --

DR. DeSTEFANO: No. Policy is --

DR. WALKUP: Could you make sure that we receive copies as soon as that is available for the committee?

DR. DeSTEFANO: Yes.

DR. WALKUP: I'm sure that can be arranged. The Agent Orange study started off -- when was it? '79?

CHAIRMAN SHEPARD: Legislation was passed in December of 1979.

DR. WALKUP: Yes. So an act of Congress back then, and we're still working on it. And maybe we'll see a pilot come out in June of '87. Could you tell me how much money has been spent on this project since 1979?

DR. DeSTEFANO: I don't really know. I know budgeted for our epidemiological studies was about on the order of 70 million, I think. And we have spent maybe a third of that so far, a rough guess.

DR. WALKUP: Since CDC took it over?

DR. DeSTEFANO: Right.

DR. WALKUP: Barclay, do you know how much the VA had spent on it before it went over?

CHAIRMAN SHEPARD: No, I don't have that figure off the top of my head. Most of the money went into the contract with UCLA to design the study. $200,000 maybe. I'm not sure.

DR. WALKUP: We spent a lot of time and a lot of money to get to where we're at.

DR. DeSTEFANO: Well, in my own personal view, I think the delay that occurred last December was perhaps fortuitous given what has developed in this past year. I think if we had plowed ahead a year ago, based on the information we had then in doing some rather crude exposure assessments, I don't know. Maybe we would have come out with some unsatisfactory result. Now, we have the ability to move forward on some firmer ground.

DR. WALKUP: I --

CHAIRMAN SHEPARD: Excuse me, if I may insert. In fact, a lot of that money has gone toward the Vietnam Experience study and the mortality study, special cancer study. So it isn't as though all of that money was in one basket.

DR. WALKUP: Is there a way to segregate that out and

identify how much is going to --

DR. DeSTEFANO: I think almost all of it because last December for the Agent Orange study, we were ordered by Congress not to spend anymore funds on the Agent Orange study, and we hadn't begun other than protocol development. That's about all that has been spent so far.

DR. WALKUP: I would just like to offer an observation, not personally directed to any one agency. But it seems like given the presentation by Dr. Kahn and the repeated presentations about the status of this study from the Veterans Administration and CDC that science has been taking a bum rap around a lot of the things that have been going on and environmental studies and especially in Agent Orange that the source of the problem appears to be science by committee, or science by government.

I know the CDC has done a lot of good things, and there is a lot of neat, socially useful work going on there. But in observing the attempt to consensus formation around the Agent Orange study for the past six or seven years, it appears that the kind of insight, creativity, willingness to take risks, ask ridiculous questions and see where they take you, are something that are not within the purview of the academic structures we have.

And that for $277,000 --

DR. KAHN: $377,000.

DR. WALKUP: $377,000. We have considerably more information than we have from an act of Congress and somewhere between $200,000 and $20 million.

CHAIRMAN SHEPARD: Yes, Dr. Kahn.

DR. KAHN: I would like very much to review that protocol, along with my colleagues in New Jersey. I think if anybody is in a position to understand how these measurements can be organized we are. We've done it. And I don't want to be left out of that, and I don't want to find out that the procedure has been engraved in stone by the time I get a copy of the thing to review.

And I don't want to get the copy and have 48 hours in which to review it and turn it around. I would like very much to have a good careful going over with it and to ask my -- at least my senior investigators in New Jersey to go over it with me because we do have some expertise here.

And I think it would be stupid on the part of the federal government to toss that expertise aside.

DR. DeSTEFANO: We can discuss this later in follow up.

DR. KAHN: As you wish.

CHAIRMAN SHEPARD: Dr. Hodder?

DR. HODDER: I hate to go against the unanimous decision of the AOWG, but I still need to be convinced that we are on the right track. The technology is very easy to be seduced by. But there are several big problems I have with what you're talking about doing. First of all, the question is what question are we looking at?

I think the main study, the 18,000, is looking at the question "given you went to Vietnam, and survived, and came back, have you now developed higher disease burden." That's obviously an important question. The question of the dioxin study still eludes me.

I think the concept is very good to say that you can look at people who were highly exposed to dioxin and look at those who were not and decide whether dioxin is a danger. Okay. We're doing that in the Ranch Hand, and it's been done in industrial studies. I'm not sure that looking at 400 individuals who were in Vietnam is worth doing that for several reasons. Obviously 400 is considerably less powerful than the Ranch Hand study is going to be.

But you're carrying -- to me you're carrying a lot of difficulties with this. First of all, the technology

although it's very effective, still leaves a lot of questions like what happens to people with middle exposures. If the half life is sufficiently short, then you may only be able to use this to document the extremes. That is only reduplicating at a tremendous cost what you're doing in Ranch Hand and what Peter has already done.

I think that's a necessary step to take first because if you can't look at the middle exposed groups, you're adding nothing new at a tremendous cost. I think that model needs to be worked out.

The second part of it is even if you do show in this study that people being exposed in Vietnam seem to have a disease burden, have you thought about how you're going to carry that forward to Congress, or to whoever is going to make the decision, in some kind of a mechanism that they can work with it or act on it. That's the other part that I'm very concerned about.

If you do go back with a relative risk of double, what are they going to do with that? I think you have to look at how the policy decision is going to be made. There are two reasons I bring that up. One is the assumption almost universally been made that we're going to come up with a big

difference on a very uncommon disease, and that would, of course, be very easy for Congress to deal with. Suppose this doubling of relative risk or one-and-a-half relative risk over very common disease like atherosclerosis? There requires a whole different policy you know taking scientific information and converting it into useful data to guide decision requires some kind of a format that the science is going to present to them.

Has that been approached?

MR. SNYDER: May I interrupt briefly? What you are suggesting needs to be done to present it to Congress is what Congress said a couple of years ago the VA was to put in place as a structure for evaluating what the science comes up with.

Regulations were to be in place to have standards in them that were specific so that when the science came down and said whatever, then it would be clear under existing regulations and not some fluid standard that maybe could be changed or fudged with, but there had to be regulations in place that said you get scientific results, whatever they are, and then the VA is to respond to them pursuant to the regulations that are already developed. It wouldn't go back to Congress.

It at least shouldn't unless service organizations or others had a problem with how the VA were implementing what

the science came up with. But the process should be that the science comes with a result and says there is some significant, or potentially significant development here or condition that shows up, and then that the VA should apply "xyz" regulation and say, well, that means we now will agree that something is service connected and allow disability claims.

Now, we as an organization, Vietnam Veterans of America, have had a problem with the existing VA regulations that set up that structure because we don't, I don't think we're confident that the existing standards of those regulations are firm enough so that we would know what happens with these results. And that's been a continuing source of aggravation that what you see is you're asking the CDC person to come up with is what's the structure for Congress to apply is what we have been complaining about for a couple of years. What's the structure the VA is going to comply with?

DR. HODDER: I don't think you're getting quite my point. If you are designing a research project, one of the things that is part of the ethics of it -- and I'm sure you're well aware the NIH and FDA have talked about this -- you do the minimal amount, particularly if you're exposing people to potential injury. You have to use the smallest "n"

in terms of both risk to people and also in terms of utilization of resources. So it is, in fact, the power that you set up the experiment very much depends on what the strength of the associations and data you need to respond to.

I'm saying that I don't think that exists. I don't think that that really does exist in terms of models. I don't know that we won't come up with a lot of studies that won't guide us.

DR. DeSTEFANO: I could try to address some of your questions. First of all, basically I think I understand what is the goal of the Agent Orange study. And basically the Agent Orange study is designed to evalute the health effects that may have been related to the Agent Orange exposures that occurred in Vietnam amongst the ground troops, or the more heavily exposed ground troops.

And we've had the Ranch Hand study to look at Ranch Hand fliers, but I think there is always some nagging concern about the ground troops were different. I mean they were down there. They were living in the stuff. They were breathing it. And they were eating it. They weren't going home and showering everyday. I think it's basically to get at that question that the ground troops had a different exposure than the Ranch

Hand crews.

DR. HODDER: But is your instrument sensitive enough -- are you only going to pick up the extremes? Again, are you going to still not be able to address the question of the rest of the ground troops?

DR. DeSTEFANO: Well, we'll find out. The validation study, the 400, is designed to get at that question. It's not designed to look at health effects. I mean we realize 400, 200 in a group is too small to look at the types of health effects that have been postulated to be associated with dioxin.

It's there to see what the levels are, and who still has elevated levels. Is it only ones that were at the highest end of exposure. That's the whole question of the validation study is to address that very issue there. As far as interpretation of results, both the Vietnam Experience study and the Agent Orange study, we as a scientific organization do a thorough and careful valid analysis and try to present it as carefully and as lucidly as possible.

The policy decisions from that will be made. I'm not sure exactly who will make policy decisions on what we find.

DR. HODDER: Let me perhaps funnel the question a little differently. To look at these 200 people -- as I mentione

the technology when it's new has to be characterized and perfected. There are things such as sex, geographic area, urban/rural differences, occupational differences -- how will you interpret those 200 versus 200 with that kind of baseline data?

DR. DeSTEFANO: Well, 200 for these kinds of measures given what is known about expected levels and what the variance of the measures are is a very powerful study. And I think it will allow us to take into account adjustments if they need to be made for age, race. We're administering an extensive questionnaire on exposures to dioxin, either through occupations or residentially, et cetera, to account for those in the analysis as well.

MR. SNYDER: I understood the timetable -- getting back to that -- basically we've had a year to year different time tables, but time table for this pilot study would have you come up with results that you would be able to publish or release to us maybe in June of next year?

DR. DeSTEFANO: Yes.

MR. SNYDER: There then is a timetable for someone to decide whether those results warrant going forward with a study.

DR. DeSTEFANO: Exactly.

MR. SNYDER: And then there is a timetable if that decision is made to go forward for having results. Have you or anyone in your shop given any thought as to what those respective timetables would be if, for example, in June you come up with results that are --

DR. DeSTEFANO: I think if all the review processes went very smoothly and quickly, we'd be talking about implementing a fullscale study, if it is determined, in fact, that that was appropriate and feasible, you would be talking about implementing a fullscale study probably a year from now at the earliest.

MR. SNYDER: So this is October. So we're talking June for a pilot to be done, and then fullscale maybe in October, and the completion of the collection of data goes from then to --

DR. DeSTEFANO: Well, you know, it's hard to say. I'm sure this pilot study we'll learn a lot from the pilot study and the timetables may not bear that close a resemblance to what was put forward originally for the Agent Orange study which was an 18 month period.

MR. SNYDER: But the original -- the pilot study, as I understand it, the pilot study would tell us whether the

records are sufficient, and you're not going to have to draw blood from 18,000 people?

DR. DeSTEFANO: That's right.

MR. SNYDER: If the records are sufficient, then you are going back to the same analysis that was done pre-serum availability of that, and then the timetable there was 18 months So begin in October of '87, year and a half after that -- what is that-- April of '89?

CHAIRMAN SHEPARD: That's just for the data collection phase.

DR. DeSTEFANO: Data collection phase.

MR. SNYDER: And then what happens?

CHAIRMAN SHEPARD: Another year for data analysis, and report preparation.

MR. SNYDER: And then a review prior to release?

CHAIRMAN SHEPARD: I would think that would include that review.

MR. SNYDER: '89, '90 -- so we are talking April of '90 rather. 1990.

DR. KAHN: The best of all possible worlds.

MR. SNYDER: That's, I think, always astonishing the length -- science takes time to have good science, and I

think we can all appreciate that. I think our committee, this means even more importantly to us, that you do something in the meantime. You just don't wait for the scientific results to finally be all there. That, I think, gives us a greater responsibility to figure what needs are unmet and try to push, at this stage, perhaps for compensation, for certain conditions.

And if, as we noted earlier, it turns out that science doesn't bear out some conditions that we think should be allowed, better that there be thousands, hundreds of thousands even potentially millions of dollars put out in compensation, I think. Better that now in the interim than let people's lives who have performed valuable services just be -- when you've got people, I think, whose lives are being, don't have a very good quality of life now, from many diseases, when you see the statistics that we had earlier on the people who have applied for compensation and been uniformly denied, you've got almost a thousand cancers in that section, that selection of data.

You get an increase in four months time of about 200 cancers that people are coming in asking for compensation for that are being denied. And I think that that there are a lot of people out there suffering that somehow we as a committee should try to nudge somewhat more forcefully the Administrator

to act now. If it requires legislation, then encourage the Administrator to go for legislation, but to wait now for another potentially two or three years for maybe some final conclusions, my earlier point to you, Dr. Hodder, was that VA regulations currently in place do not give me any assurance that regardless of what CDC finds that we will know what the VA will do with that science.

The regulations are not that specific, and I think that still is a big problem, and that is a source of concern for us.

MR. CARRA: Along those lines, would the Veterans Administration have to go through a formal rulemaking suppose the results were positive and there was an indication that the Agency decided that something should be done to address that it was some cause and effect relationship, for example?

Would there have to be some formal rulemaking then undertaken by the Veterans Administration? And how long would that take?

CHAIRMAN SHEPARD: If you are asking me the question, I'm not a lawyer and I'm not an expert on rulemaking. Is Mr. Conway here? The question is would the VA have to undertake

additional rulemaking for the purpose of adjudicating claims in a system different than now exists? I think I'm boiling your question down.

MR. CARRA: Right.

MR. HICKMAN: We would have to go through a rulemaking process that is through the Federal Register. How long that is going to take --

MR. CARRA: What does it usually take?

MR. HICKMAN: Normally it takes -- when we have the item prepared, usually we give 30 days, sometimes 60 days, public notice for comment. After that, it would take another 60 days for implementation. We're talking probably a minimum of four to six months.

DR. KAHN: Keith, I think you make your motion on the interim compensation.

MR. SNYDER: As a matter of fact, I wrote something up. Do we want to put that off a second?

CHAIRMAN SHEPARD: I want to take questions. Yes, Dr. Hodder? Let's restrict our comments and questions to the CDC efforts because I think that is the issue on the table.

DR. HODDER: Actually Mr. Snyder's point actually reminded me the last question with the new technology, the other

issue is rather than go ahead as a prospective study, particularly to answer the questions that the VA wants to know, i.e., does the fact that an individual having been exposed to an herbicide have a higher risk of say developing soft tissue sarcoma, that technology to me seems to be much better and much less expensively applied to case control studies.

DR. DeSTEFANO: I think you may be right. We may have to consider that. That's why I say at this point --

DR. HODDER: I guess I'm saying not only do you have to consider it. The question is isn't that maybe what ought to be done. Is there enough justification to do prospective study at tremendous cost when the models haven't been worked out and that's I guess what I'm getting at in the long run?

CHAIRMAN SHEPARD: As you know, Dick, there are four case control studies underway at CDC dealing with specific cancers which have been alleged to have some association with herbicide.

DR. WALKUP: One of the things that has been coming up more and more frequently is the base line levels of dioxin and some other compounds that we have been concerned about in the general population and the difficulty that presents in being able to assess health effects on Vietnam veterans.

It seems like there are two issues that are very important for social policy in this area, and I wanted to find out what CDC had underway to look at those. One is how do you -- with the difficulty that you're having assessing half-life and minimum exposure impact on health effects, and with the -- in addition to the baseline exposure of the population, the exposure of workers in a number of industries, not just producing this kind of stuff but producing a lot of other things, and with the problems of waste sites and accidental spills and all that, we're not just worried about Vietnam vets.

What studies does CDC have underway to look at those, and when might we know something about that, and a subset of that, within those kind of studies, are you looking at interaction of Vietnam service and possible exposure in industrial settings?

DR. DeSTEFANO: You're right. Dioxin is a concern in several settings besides for the Vietnam veterans. The two studies that I know that are going on in CDC or soon to begin to address those issues are: (1) a continuation of the Missouri study in Times Beach. These were people who were exposed when waste oil which had been contaminated with dioxin was sprayed on dirt roads in certain areas of Missouri for dust

control. There has been an initial evaluation of a few hundred residents of the Quail Run Trailer Park, and those results were published this past summer. Exposure assessment there was basically done on number of years of residence at the trailer park compared with a control group of residents in another similar trailer park where the oil had not been sprayed.

And you know with a small study, they had some interesting results. Last winter I think there was some sentiment brewing that all these studies had been done on dioxin and none of them were finding anything in humans. The question was raised whether it was worth pursuing doing any studies. And this summer we have the Missouri results which found

some pre-clinical or laboratory abnormalities.

But they did find a markedly decreased cell mediated immunity in the exposed individuals,

as well as a definite dose response relationship with liver function abnormalities, microsomal enzyme abnormalities, in the exposed group.

Fat and blood samples were obtained on these peoples and measured for dioxin levels. The health effects will be correlated with the dioxin levels. I don't know when that manuscript will be completed and published.

I would imagine soon, probably not to exceed a year.

The other study has to do with occupational exposures. NIOSH, the National Institute of Occupational Safety and Health which is a part of CDC,has a protocol approved, and the last I knew was ready to initiate this study, contingent on approval of Superfund money, appropriation of Superfund for the next five years.

They propose to study a group of workers who worked at a plant in New Jersey. I don't know specifically what compounds they were manufacturing, but there was dioxin.

DR. KAHN: I do. There was 2,4,5 trichlorophenol, hexachlorophenol. They made hexachlorophene. They made 2,4,5 T. They made 2,4 D, and they received 2,4,5 T. And they formulated Agent Orange for shipment to Vietnam.

DR. DeSTEFANO: Okay. So they have a study about to get underway, a study about the health status of these people.

MR. SNYDER: Wasn't that the study that Dr. Young had some input on through OMB? Is that actually ongoing or is that?

DR. DeSTEFANO: OMB did have some input on it. I don't know.

MR. SYNDER: There was some press that a NIOSH study of dioxin had been put on hold or sidetracked in some

characterization through the efforts of Elton Young?

DR. DeSTEFANO: I think a similar tact was taken there. It has been scaled back to do an initial pilot study which is going to be, I guess, about a hundred or so people, and pending the results of the pilot a determination will be made about whether or not to proceed. They are also planning to do blood dioxin measurements in that study.

Those are the two main studies I know of that CDC is involved with.

DR. KAHN: Are you going to do the blood dioxin work for the Newark dioxin people?

DR. DeSTEFANO: Excuse me?

DR. KAHN: The Newark dioxin workers?

DR. DeSTEFANO: Yes.

DR. KAHN: You guys are going to do that?

DR. DeSTEFANO: Yes.

DR. WALKUP: Were Vietnam veterans or veteran status generally identified as one of the -- is that part of the protocol in the study?

DR. DeSTEFANO: I have not seen their questionnaire. We will check with the investigators and see that that is added. But as far as the Missouri -- actually, I have seen the

Missouri questionnaire, but I don't recall if service status was on there.

DR. WALKUP: Would it be possible for members of the committee to have the report that was published this summer on Times Beach?

DR. DeSTAFANO: That was in JAMA.

CHAIRMAN SHEPARD: You mean the Green study?

DR. DeSTEFANO: Yes.

CHAIRMAN SHEPARD: It's been published in the JNCI.

DR. DeSTEFANO: JAMA.

CHAIRMAN SHEPARD: JAMA; right. I thought we circulated that. No. Okay. I think we did, but if not, we will.

DR. DeSTEFANO: Probably another study you ought to know about is the National Cancer Institute in September published a study of Kansas farmers.

DR. KAHN: We got that.

DR. DeSTEFANO: Okay. That was another -- that was JAMA as well.

CHAIRMAN SHEPARD: We have that here; right. JNCI study would be a different -- we have circulated the --

DR. WALKUP: I'm sorry. That isn't quite it. Are there any mechanisms underway to deal with the same issues that

Dr. Hodder was talking about for veterans to impose controls on introduction of this stuff into the environment or to have OSHA standards for worker exposure to this stuff? Everybody has got it. How are we going to stop it?

DR. DeSTEFANO: I do not believe there are any standards yet. Do we have anyone here from the EPA?

MR. CARRA: EPA. No, I don't think there are any standards yet.

DR. WALKUP: That might be something for our committee to discuss also.

CHAIRMAN SHEPARD: I think we'll take our lunch break now and reconvene at 1:00 o'clock.

(Whereupon, at 11:50 a.m., the meeting recessed, to reconvene at 1:00 p.m., this same day.)

## A F T E R N O O N  S E S S I O N

(1:10 p.m.)

CHAIRMAN SHEPARD: I think we better get started. I recognize that some of the members of the committe aren't back from lunch yet, but we still have a number of issues to deal with so I think we better push on.

Prior to the break, Mr. Snyder asked me to introduce Mr. Christian and asked him if he would be available for some questions. I thought he was going to be able to come back this afternoon, but I just saw him a few minutes ago, and he has a meeting at Forest Glen that he has to attend. But he said if anybody had any questions to please transmit them to him, and he would be more than happy to handle them.

So if in the course of the discussions, questions occur to you, things that you would like to ask Dick Christian, I'm sure that he would be more than happy to oblige. Dick is well known to many of you, I know, and his work certainly has been immensely important to all of us.

GAO REPORT - JANUARY 1986

The question of the GAO report is next on the agenda, and you have a number of questions that have been raised by members of the committee. What has been the VA's response to the GAO recommendations? What suggestions were implemented?

Which ones were rejected and so forth? Each of you should have a copy of the GAO report which contains the agency's response to the recommendations of the GAO. Some were rejected. Some were accepted. And some of the recommendations are being implemented.

So why don't we just open up a discussion on the GAO report, and those of you who have concerns about it, please raise them at this time.

Take a few minutes to look over some of those questions.

MR. SNYDER: Well, a number of my questions with the GAO report had to do in particular with the medical care that was available through Public Law 97-72, and I would like to focus if I could on that.

CHAIRMAN SHEPARD: Okay. Could you refer us to -- as appropriate, refer us to the page or whatever?

MR. SNYDER: Page 50 of the GAO report is Chapter 6 entitled "VA Needs To Clarify How Public Law 97-72 Should Be Interpreted and Its Impact Measured."

There were a number of issues, I think, raised by that report. One of which is that it was not clear to VA medical centers -- at least there seemed to be some divergence in what

they understood the guidance from the Central Office was, and I think there was some question, some differences between people that GAO had interviewed at Central Office as to what Central Office guidance was on one issue in particular, I guess. Under Public Law 97-72, just to refresh our memory, and I think I've got this clear, people who allege exposure to Agent Orange can be provided medical treatment.

And if what they're seeking treatment for is something which is possible to relate to Agent Orange exposure then they are to be treated, and there is some guidance on what is obviously not related to Agent Orange exposure: a hernia, a heart attack. There is a list of three or four things.

CHAIRMAN SHEPARD: Five.

MR. SNYDER: Otherwise people could be treated. That's 97-72 for medical treatment. You had, though, layered into that in chronological and time order before that public law, the VA was offering an Agent Orange examination, and there appears to have been, and still is, some confusion in the medical centers as to what the relation is between that medical examination and getting treatment under 97-72, and whether people had to come in who are looking for treatment and had to be examined and formally examined and entered into

Agent Orange registry first before getting treatment. In the past three weeks, I guess I had one veteran from Ohio who had called -- he has a kidney cancer, and he for the first time just a few weeks ago had been asked for his Agent Orange registry number before he would be treated.

And he argued with whoever he was talking to and they conceded that he didn't have to come up with some number. I had called your office and talked to Mr. Rosenblum in your absence, and we really couldn't clarify what this Agent Orange registry number might have been that was being requested.

But as I understand the Agent Orange registry examination program, there is no real number that is assigned to anybody. The only numbers that Don and I could think of were in the Agent Orange law suit. When people filed a preliminary claim form, there is an Agent Orange claim number that might have had some confusing element in that process.

But this individual at the medical center -- it's in Iowa City -- said that he had been asked to fill out on a clipboard. He was given two clipboards when he went in for his exam. One clipboard asked if he was there, what his income was, some other questions, and if his income was "x" level, he would be given the second clipboard. And one of those somehow

he was being asked to produce an Agent Orange registry number. That is one of the questions that -- and I think it exemplifies perhaps some of the confusion in medical centers as to the relationship between the screening program and the treatment that is available.

And the concern for us as an organization, of course, is that if you can -- when you want treatment -- when you're sick enough to go to a VA facility and seek treatment, you don't want the additional hassle of being told, well, before we're going to treat you you have to down the hall and have "xyz" examination, and it may have nothing to do with what you're really looking for treatment for specifically that day.

So anything that can be done to reduce the potential for that kind of confusion when somebody seeks treatment, I think, is very useful. And that was part of what GAO was suggesting wasn't there. There was a differing interpretation of whether the Agent Orange examination had to be conducted prior to obtaining treatment.

And I'm not sure that that is addressed finally in the VA comments on the report.

CHAIRMAN SHEPARD: Okay. Can you refer us to the specific statement in the GAO report that show that there is a

confusion between --

MR. SNYDER: Well, page 51, we're talking about claiming exposure, and whether they had to claim exposure to be treated. I may be confused as to which --

CHAIRMAN SHEPARD: Yes. Public Law 97-72, just to refresh your memory was -- first of all, it has nothing to do with the Agent Orange registry per se. Agent Orange registry was set up long before Public Law 97-72 was passed.

There is no requirement that I'm aware of -- certainly from this office or from this headquarters that a veteran must have an Agent Orange registry examination prior to becoming eligible for treatment under Public Law 97-72.

The purpose of the Public Law 97-72 was to provide medical care to veterans who thought they had a health problem related to Agent Orange. I guess tacit in that is the fact that for that to apply a veteran has to claim --

MR. SNYDER: Claim the exposure.

CHAIRMAN SHEPARD: Right. But I don't think there was ever any requirement that he establish exposure in order to be eligible for that. I think the only requirement was for him to state that he believed he had a problem related to exposure.

MR. SNYDER: But did have to say exposure, or did

have to at least indicate affirmatively that "I was exposed." On page 52, they were talking about the difference in establishing priorities for treatment.

CHAIRMAN SHEPARD: Page what? I'm sorry.

MR. SNYDER: Page 52.

CHAIRMAN SHEPARD: Yes.

MR. SNYDER: In the bulleted section, they were talking about given priority care whether they have an Agent Orange examination or not. Three centers they give priority for the examination regardless of when exposure is identified.

CHAIRMAN SHEPARD: Okay. Is that a problem?

MR. SNYDER: Well, the last paragraph of page 52 talks about the priority, what the 97-72 gives us is a priority that getting care. And although GAO concluded generally that there was no problem in those priorities because there was not an excess demand, it anticipated that there would be a problem in the future, and I think on page 52 we see that there was a problem with two of the nine places they visited.

They said that they could not schedule people in clinics unless they had a service-connected disability. And people who would come under 97-72 would not be coming saying they have a service-connected condition.

So people going to those facilities would not get the treatment, if I read that correctly.

CHAIRMAN SHEPARD: Yes. Okay. Let me try this on, and see if it answers your question. If you'll look carefully at the language of Public Law 97-72, it provides priority eligibility within the non-service connected community. That is, it does not place a Vietnam veteran who does not have a service-connected disability ahead of anybody who has a service-connected disability.

So in hospitals where priorities are given for treatment to people with varying degrees of service-connected disabilities even Public Law 97-72 does not place an individual ahead of that process.

So a non-service connected veteran under Public Law 97-72 is not placed into higher priority than a service-connected veteran.

MR. WILSON: I want to say something here. And this guy -- I think there is a comp and pension guy behind me. If I'm not mistaken, the majority of care provided at VA facilities is of a non-service connected basis; is that right or not? Well, if he doesn't know, I'm telling you that most of the care in VA facilities is non-service connected, and a

very large percentage of it. The law says that these Vietnam veterans will have priority care equal to that given former prisoners of war which have the highest category of non-service connected treatment.

So let's just say for the sake of argument -- you can check it upstairs if you want, 80 percent of all the services conducted at a VA facility are non-service connected, and 20 percent are service connected.

That means that these Vietnam veterans along with former prisoners of war should be at the 79th percentile and not below it. And so you can argue all you want, the thing is they should have a substantial -- you can say non-service connected, or you can call it anything you want -- they should still have a substantial priority in a VA health care system.

CHAIRMAN SHEPARD: Okay. I'm not -- I don't doubt --

MR. WILSON: Check it out.

CHAIRMAN SHEPARD: Wait a minute. I don't disagree with that you said. It also doesn't contradict what I just got through saying. Okay.

MR. SNYDER: Let me try -- just to make sure I understand what would happen for people under 97-72. If, for example, you had a woman veteran, Vietnam veteran, who alleged exposure

and was concerned about breast cancer, had an outpatient clinic near her. What's going to happen if she goes and alleges exposure and needs a biopsy? First, will she get it, and if she gets that, and it's malignant, then what happens within the VA system for someone under 97-72, for her under 97-72?

I'm not sure what happens in that situation. That's a case I've been asked -- I've been contacted about.

DR. FITZGERALD: I think that's a further distinction. Are you asking for hospital treament or outpatient treatment?

MR. SNYDER: The biopsy would be outpatient presumably?

DR. FITZGERALD: No, that could be inhouse that she would be eligible for.

CHAIRMAN SHEPARD: It depends on the nature of the biopsy, too.

DR. FITZGERALD: The potential for other than service connected patients in today's economic strata of getting outpatient treatment is very small.

MR. WILSON: 97-72 doesn't distinguish between inpatient and outpatient. It just says priority care and treatment. It does not distinguish between outpatient/inpatient.

MR. CONWAY: It does. Public Law 97-72 extends health care eligibility for inpatient care only or outpatient care

to obviate the need for hospital care or to follow-up on hospital care.

MR. WILSON: That's what I just said.

DR. FITZGERALD: No, that isn't what you said.

CHAIRMAN SHEPARD: No, you didn't.

MR. CONWAY: It's an entirely different thing from whether a person gets outpatient care only.

MR. SNYDER: Well, in my hypothetical, it depends on the nature of the biopsy that she might have to have whether that's an outpatient or hospital service?

GENERAL WELLS: All right. Well, let's say she had to have a mammogram. Would she be able to have a mammogram?

CHAIRMAN SHEPARD: I can't answer that.

DR. FITZGERALD: I would think she probably would in order to obviate the need for hospitalization.

CHAIRMAN SHEPARD: Right.

DR. FITZGERALD: That would be a presumption. But what I'm not clear about is the VA staff has the capability of determining whether it is reasonable for a diagnosis to be associated. That would be the point that I think might come in contention more frequently than anything else.

MR. SNYDER: So that the five conditions that clearly

are not related, there is in addition the guidance or the discretion to decide that something else is clearly not related?

CHAIRMAN SHEPARD: No.

DR. FITZGERALD: Right. And I think that is put into the hands of the chief medical director, as I recall.

CHAIRMAN SHEPARD: Well, I think it's the other way around. I think if at any -- even given the five exclusionary conditions, or cases, if in the judgment of the chief of staff or chief of medicine or whatever -- I forget the exact wording -- but that there are extenuating circumstances, then he's not bound by those.

In other words, that is general guidance, the provision of that guidance is stipulated in the law that the chief medical director shall provide this guidance, and that is why those five areas are there.

But there is also a clause that states in that same guidance that if there are extentuating circumstances, then the chief of the staff of the hospital has the authority to provide the care anyway.

MR. SNYDER: So a mammogram may or may not -- first, we don't know whether they are generally available at VA facilities in the first place, but if available, there is the

discretion to say yes or no under 97-72?

CHAIRMAN SHEPARD: Yes. My hunch is that in a majority of instances, if there is a real threat of something as serious as cancer, and breast cancer certainly is one of the more serious forms of cancer, that in the majority of instances that would be pursued.

I mean I think it's unlikely that there would be many cases in which somebody would get turned away if they have evidence that they might have --

MR. SNYDER: But would the advice to us as service organizations be to get that person as near as possible not into a clinic setting, but to go to a hospital and ask for hospital care, couch it in terms of that?

DR. FITZGERALD: I think it would be even more compounded in view of recent legislation, as to the financial responsibility of the individual. That would make it even more difficult.

MR. SNYDER: Although people if they allege Agent Orange and seek treatment under 97-72 are regardless of ability to pay --

DR. FITZGERALD: They're not required to show the income. But then if the determination is made that the particular

diagnosis for which they are seeking treatment is not related to Agent Orange by the chief of staff, then they would come under the financial responsibility.

MR. LATTANZI: We had an incident in New York that was pertinent to what Keith was saying that a female era veteran had presented to VA with an ob-gyn emergency and was told that she could not be treated, and subsequently went to a public hospital in New York, was treated, and then tried to obtain reimbursement from VA, and ultimately was denied reimbursement.

CHAIRMAN SHEPARD: I don't doubt what you're saying. I don't know how that applies. If you're talking about a non-Vietnam veteran -- are you suggesting --

MR. LATTANZI: No, no. Vietnam era.

CHAIRMAN SHEPARD: But did she go in-country veteran?

MR. LATTANZI: No.

CHAIRMAN SHEPARD: Not alleging Agent Orange?

MR. LATTANZI: No.

CHAIRMAN SHEPARD: Then I don't think that is germane to the conversation as far as Public Law 97-72 is concerned. It is another issue of concern. I'm not suggesting that it's not an issue of concern. But I don't think it pertains to our discussion.

And the other thing I would just like to say, and here again this is my own thought on the subject is that it's very difficult to generalize what might happen in one hospital, and may not necessarily happen in another hospital because there is a variety of factors at work. In other words, an outpatient clinic may not have -- may not be staffed to take care of a particular problem for some reason or other.

And it may be that another hospital or clinic would be. So it may be that an individual cannot be seen at a particular clinic for one of a number of reasons. And maybe referred to a VA hospital which might alter the circumstances in terms of the kind of care he or she gets.

But in general, these guidelines are fairly broad, and fairly inclusive, I think. That was their intent. I think that was the intent of the legislation, and when you're, as I've said before, dealing with a system as large as ours, it's difficult (a) to monitor every case; and (b) to assure that the process if applied uniformly throughout in a very ununiform system.

But let me also say that if you hear of cases where you feel that any of your constituents or people that you are concerned about are not getting care under Public Law 97-72

that you think they're entitled to, please let us know and we'll be happy to look into it.

MR. SNYDER: Do you have in terms of statistics of incidence of treatment being provided, is there a breakdown by facility -- and I know you provided us with national statistics year by year or so -- is there a breakdown that indicates that some facilities provide much greater percent of their inpatient hospitalizations perhaps are attributable to 97-72? Is there a a wide variation in that percent that might suggest in itself some differences in understanding of what the law is to apply to?

CHAIRMAN SHEPARD: Not really. For a variety of reasons, it's very difficult sometimes to know exactly what constitutes a 97-72 eligible individual and characterize them as such. I mean an individual comes in and says,"By, God" -- doesn't usually come in and say "By God, I'm here because of 97-72, and I demand treatment based on 97-72," and that suddenly sets into motion a whole system that is different, and that can therefore be counted.

So it's not that easy. And oftentimes people come in with maybe more than one complaint, and one complaint may be related to Agent Orange. Another one is not related to

Agent Orange. Are they then counted as a 97-72 case? These are just a couple of things that come to mind. And on top of that, I'm not sure what utility they would -- is it worth expending a lot of effort, setting up a whole new record system to monitor 97-72 eligible individuals?

And we've thought about that, and we've done, I think, as much as can be reasonably expected in terms of monitoring the overall impact of the law. But to do it on a hospital by hospital basis, I believe I'm correct, and this is a little out of my area of responsibility, but I think that the VA puts out a report that deals on a hospital by hospital basis as to the workload of service-connected and non-service connected veterans.

I think that is available, if that would be useful to you.

MR. SNYDER: On the question of what people are being treated for when they go -- this is separate from the Agent Orange registry and trying to record what people are presenting with, what kinds of complaints they are raising for the general examination, but when people get treated, do I understand that there is some confusion as to how and what your record-keeping requires in terms of what people end up being

diagnosed as having and being treated for? The code sheets that record someone coming in and claiming Agent Orange exposure, and you get a credit for 97-72, does any of that recording process include the diagnosis that is confirmed by the doctor as someone getting treatment for, or are you simply counting episodes of treatment?

CHAIRMAN SHEPARD: Okay. As far as I know, there is no code sheet for people coming in claiming eligibility under 97-72. There is a code sheet for --

MR. SNYDER: For the examination?

CHAIRMAN SHEPARD: Well, there is a code sheet. And what I mean is I mean computerized code sheet, or a code sheet to be used for computerization for the Agent Orange registry. But I'm not aware of any code sheet that is used specifically for 97-72 eligibility.

MR. SNYDER: Would it be for statistics purposes or for a better view of what is happening in terms of people's medical complaints and problems, would it be more useful to have the diagnosis of people who are coming for treatment saying they were exposed to Agent Orange? Would that be more useful than what you're collecting in the Agent Orange registry?

Is it or is it not more important to know what people

are actually coming for treatment for? Because I know that in the registry, the quality of the data in the registry, I think it's pointed out here, is you're missing a lot of information.

And your latest circular suggests you have to have a bunch of disclaimers whenever you're talking -- whenever VA central office people are talking about the Agent Orange registry and its results and what it's finding, make sure you have all these disclaimers in your speech because you're missing a lot of data. And it would cost a lot of money to pick up all that data and maybe have a limited value.

But maybe a more important source of data that would tell us what kinds of health problems people are having would be when they go for treatment for something, what are they gettin treatment for as opposed to you want a general physical examination, and you do or do not find specific problems.

Has there been any thought given to -- I mean part of your question here is maybe dropping the Agent Orange registry examination program and all the record keeping that goes with that. And I think what I'm close to suggesting is maybe drop that. Maybe don't have these elaborate code sheets for people having general physical examinations. Continue to offer

an examination program, a physical examination, a general examination. If something shows up, continue the guidance you have that says tell people treatment is available. But more importantly to record the statistics relating to the type of treatment that people are having.

I'm not sure -- what are the other thoughts of what would be more useful in terms of statistics and reports?

CHAIRMAN SHEPARD: Of course, we have the patient treatment file which does track people who receive inpatient care. Now, it's not broken out in terms of whether they're getting care under the provisions of 97-72 for the reasons that I stated earlier. Sometimes the reason an individual is there is not all that clear. I mean it's hard to separate out that that is a principal reason. People go to hospitals because they're sick. They don't go to hospitals because Public Law 97-72 tells them to go to hospitals.

So it would be difficult, and I'm not sure how useful, except perhaps in a health survey kind of way, to determine what kinds of problems veterans are receiving treatment under this provision. It would be a curiosity, I think. I mean I would think it would be a legitimate question.

It would be difficult to derive the answer to that

question, I think, without expending a lot of additional administrative time and effort.

MR. SNYDER: You don't now breakdown -- you have an age, but you don't have an era, period of service recorded.

CHAIRMAN SHEPARD: Yes, we do. Yes.

MR. SNYDER: Is that?

CHAIRMAN SHEPARD: It's coded.

MR. SNYDER: You don't distinguish between in-country and not.

CHAIRMAN SHEPARD: We tried that at one time, and that became an administrative headache, and we finally abandoned that effort. We tried to have a distinction between whether or not people served in-country and whether they did not. And theoretically that is still supposed to be in place. Veterans are supposed to have a "V" after their "7" if they actually served in-country, but that also became someone onerous to get that information and get it cranked in so we have not been pushing that.

Theoretically, it's there, but how accurate it is, I would not attest to.

MR. SNYDER: Well, you asked here the question of whether the registry should be continued or not. And I know that

at least one state has dropped its -- no longer advices members, veterans in its state to obtain that examination. And there was, I think, a survey that the New Jersey Agent Orange Commission had conducted of why they made that recommendation, and I think it might be useful if we maybe heard briefly summarizing what that summary showed. And I would ask Wayne to do that.

CHAIRMAN SHEPARD: Sure. Do you have that information, Wayne?

MR. WILSON: Yes, I do. Actually, it's the second survey that we've done. The first one I did for Congressman Chris Smith several years ago. Interestingly enough, the results unfortunately correlate very close with the results of our first survey.

The survey is small. It's an ongoing survey. At this point, we had a total of 43 respondents. But what was interesting about the survey, I think we asked them 22 questions. This is not scientific, and I'm not Dr. Peter Kahn. Okay.

I'm interested in what consumers -- in this case, Vietnam veterans, both men and women -- have to say. And clearly it reinforces what I've said and the position our commission has taken, and as Keith mentioned, our state commission, an official agency of the State of New Jersey, no

longer recommends that Vietnam veterans avail themselves of the Veterans Administration Agent Orange screen exam. We found that the examination in many cases was of poor quality. Veterans often left the facility angry, and as the survey indicates -- and I won't go through all 23 questions, but just to give you some idea of where the responses came in from, they came in from San Juan, Puerto Rico; Castle Point, New York; Lakeside; Chicago, Illinois; North Chicago; East Orange; Baltimore; St. Louis; Philadelphia; Manhattan; Lyons; Elsmere, Delaware; East North Port; Fort Hamilton, New York; Iowa City; Hines Coatesville, Asheville North Carolina; Brecksville, Ohio; Milwaukee, Wisconsin; Marion, Illinois; Omaha, Nebraska; Togus, Maine; Columbia Missouri.

On the first question we asked: "Do you as a Vietnam veteran believe you were exposed to Agent Orange," there were 43 responses to the question, and I'll just give you percentages of the question. Generally, we had anywhere from 38 to 43 responses on the 23 questions. 88 percent said yes. Zero percent said no, and 12 percent said not sure.

Some of the interesting statistics in terms of what Vietnam veterans thought about -- question number eight: "What was the attitude of the person who examined you at the VA

facility?" Let me just see what question number eight said. There were 40 responses to the question. 13 percent answered helpful; 87 percent of these 43 Vietnam veterans from across the country -- 87 answered that the VA person didn't seem to care.

Number ten: "Would you describe the exam as thorough?" 43 responses, 19 percent answered yes; 81 percent answered no.

Let's see. "Were you asked to provide a medical history?" Question number 14. Let's see what Vietnam veterans said about that. 39 responses to this question. 31 percent said yes. 69 percent said that they were not asked to provide a medical history.

And some of the real interesting questions. Let's go to -- did you receive -- 16. "Were the illnesses or disabilities you described in question number five evaluated?" These are the illnesses, disease, diseases, whatever that veterans reported to the VA.

Question number 16. The responses are yes, no, and some. Let's see what they said. There were 38 responses to this question. 13 percent said those illnesses or diseases were evaluated. 53 percent said they were not evaluated, and 34 percent said they were partially evaluated.

"Did you receive exam results?" Ten percent, ten percent said they received exam results. 65 percent said they did not receive exam results. 25 percent said they received a form letter response that they did not understand.

Question 18: "Did anyone discuss exam results with you?" 13 percent, yes; 87 percent, no. That correlates more or less with the question prior.

Here we go as a finish-up. "Has the VA followed up on the illnesses or disabilities noted in question-- I gave you that one.

Question 20: "Were you satisfied with the exam?" You know companies spend a lot of money to find out whether people are interested in buying their product. Let's see what people think of this product. "Were you satisfied with the examination?" Simple yes or no. Eight percent said they were satisfied. 92 percent said they were not satisfied.

Question No. 21: "Are you satisfied with follow up care or treatment as provided by the Veterans Administration?" Again, we asked Vietnam veterans a simple yes or no. Would anybody want to guess what they said? There were 39 responses to this question. Eight percent said they were satisfied. 92 percent said they were not satisfied.

As I said, this correlates very closely with the survey we did three years ago. I sent Mr. Snyder a letter when I sent these results to him. And in effect, I said that I would bet a year's pay, or as I always do here, my life, that if we surveyed a hundred or a thousand that the results would generally hold, and I believe that the Veterans Administration works for Vietnam veterans. And I think that we can talk about it all we want here, and if you recall, I've been talking about this for six or seven years; right, Chuck? Generally -- maybe not in West Virginia, but clearly in some parts of the country, maybe most of the parts of the country, we've got a major problem in terms of this, Agent Orange registry, the Agent Orange exam process. It's a mess.

And this is what veterans are saying. And some of the comments. I didn't even share the comments. Did you read some of those comments? Let me tell you -- you know -- don't go to some of these parts of the country, Barclay. There are some angry people out there. Okay. And most of the comments were not complimentary to the Veterans Administration system.

And the comments, I think, more than anything else got to me. So there is what we found. And if you want, I'll repeat this next month with 43 different respondents. They're already

starting to come in, and I guarantee you if I just add to these figures it will be even worse.

GENERAL WELLS: How many did you send out?

MR. WILSON: About 500. We usually get a very good response back. They were distributed primarily through the American Legion and the Veterans of Foreign Wars who we work closely, and I would say that most of these responses came from veterans in those organizations.

In fact, we patterned this very much after the American Legion questionnaire, and we had sampled a couple hundred veterans using the American Legion questionnaire a number of years ago, and found generally the same thing.

So I t hink when I did the one for Congressman Smith, I think we sampled one hundred veterans for him, and I think we got 56 responses back, which was just outstanding. And it showed there was a problem in 1980 and '82' and I think that's a matter of record. I saw it printed in a subcommittee hearing transcript.

CHAIRMAN SHEPARD: Thank you, Wayne.

MR. SNYDER: What use do you make of the registry in terms of whatever statistics you can generate out of that? Do you feel personally that there is some value in maintaining

the reporting requirements separate from continuing to offer an examination? But of what use can you make of whatever statistics you can generate out of that examination? You can't make scientifically valid statements about, extrapolate from who comes in for an exam what they've got to anybody else in the population.

So that would seem to be a significant limit on the value of reporting and keeping those statistics in as detailed as you currently do. And I would think there would be some interest in the field for perhaps not having to generate one report if it's not able to be used as was originally intended perhaps.

CHAIRMAN SHEPARD: That's a good question, and one that has always been difficult to answer. When we set up the process, first of all we felt it important to develop some kind of data gathering system. In the early stages, we felt that was not being adequately implemented. So we went through a major revision.

We recognize that we haven't got all the bugs out of it, but we think it's better than it was when it was first started. It's always been my hope that at some time we could analyze, at least in the more recent years, and we still have

that hope, the data that, say, has developed in the last three or four years, maybe two years even in the registry.

That is a fairly substantial undertaking, and at the moment we are involved in a lot of other research efforts which take up most of our staff time. So we don't really have the resources now to do a detailed analysis of that data. Now that isn't to say that we won't be able to do it at some point in time. I think it's still an interesting question.

We didn't know how many people would respond to the Agent Orange registry for process when we first started the process. We've learned a lot, and I think we still have the potential for doing some analysis of that.

I think one of the basic purposes of the registry, however, still pertains that as this research develops that we will have a mechanism for getting back to individuals if we want to do any follow-up examination.

GENERAL WELLS: Yes, that was a question I had. It was also to be a form to contact the veteran. And one of the problems that seems to come up around the table is trying to get back to the veteran with information. And if you phase out the registry, do you have something then that gives you name and addresses to send information to people?

MR. SNYDER: But the names and addresses you have now, what percent are likely to be current?

CHAIRMAN SHEPARD: I can't answer that.

MR. SNYDER: Was that looked at in this or not?

GENERAL WELLS: There were duplicates.

MR. SNYDER: Because I thought -- not only duplicates, but you have not really been able to afford to go back to people and mail houses would go back and forth and confirm addresses and make sure that people are still there.

CHAIRMAN SHEPARD: The instructions, I believe, state that the hospitals should make an effort, or should impress on veterans the importance of staying in touch with the hospitals. If there is a change of address, please make that fact known.

MR. WILSON: Well, I'm here as living proof. I never get your Agent Orange review. Togus, Maine has never caught up with me from 1980, and if the VA don't know me by now, Barclay. I notify you folks. You call me in for reevaluations all the time to make sure my PTSD has been squared away, and yet you can't keep track of me on the Agent Orange.

How many other people are like that? And you turn my name over to the courts without my permission. Just thought I would throw that in, Keith. Wayne Wilson. Put that on the

record.

MR. SNYDER: I think maybe that suggests that we look again at what the value of the registry is in light of a lot of the missing data, in light of the fact that -- I mean you're not able now to be sure that what's going into it is being entered properly and so that down the road you would be able to do the data analysis you would like.

CHAIRMAN SHEPARD: Wait a minute. I have to -- I'm sorry. I think you are making a very broad generalization based on limited data. I don't think you can say validly that what is going into the registry is not accurate.

There may be instances, and any review, any meticulous review is going to turn up flaws in a system. But to say that that applies across the board and that a majority of the data in the registry is faulty, which is what I think you're trying to imply, I don't think that's a legitimate statement.

Now, we can talk about it afterwards, but I --

MR. SNYDER: But that is what GAO has said here at page 41, that the 86,000 veterans before the improvements were made, you've got problems that remain. 86,000 out of the 200 -- what's your total now -- 220 -- is a significant percent of who you have in the registry.

CHAIRMAN SHEPARD: Okay. That's why I made the statement earlier that the system, I believe, has been improved. And that if we were to make a statistical analysis we would want to probably focus on the individuals who have come into the registry more recently than earlier. I accept that. I think I stated that earlier.

Are there any other questions on the GAO report, comments? I would urge the committee to address the question as to whether or not you believe the registry should continue or should not continue in its present form, or changing the issue, I think that's a legitimate question, and one on which some advice perhaps should be provided to the VA.

I have my personal views on the subject, but that's beside the point at the moment.

DR. KAHN: I have a problem with the way in which the registry has been used in the past. Maybe I should turn this thing on, and I don't know the extent to which that is going to continue in the future. But I remember an American Chemical Society meeting here in Washington some years ago in which some data from the registry was presented. This was mostly on the 86,000, I believe, at that time. And the attempt was made to persuade the chemists there assembled to believe that the

distribution of problems faced by those Vietnam veterans who had reported themselves in the registry was about what you would expect in men of that age. Okay. That may or may not be true.

MR. WILSON: Shouldn't have said it anyway.

DR. KAHN: It came across as an attempt to say that the Vietnam veteran really doesn't have much of a health problem. That's how it came across, and whatever the intention may be, and then you went out and had a press conference, which I didn't realize until I saw it in the newspapers a few days later, because I stayed in the meeting room. None of the criticisms of the GAO which were available, the first GAO report, were out by that time, were voiced at the meeting except by me who stood up and said them from the floor. And I got a shocked reaction from the assembled chemists who, of course, have no idea what's going on in all of this.

And, you know, that wasn't good work. That was shoddy work. There are legitimate reasons for maintaining a registry. But doing epidemiology with it is not one of them, and as the VA frequently said, and yet in front of the assembled chemists of the ACS, it came across as an epidemiological study of a sort.

CHAIRMAN SHEPARD: Well, I don't have a transcript of

that meeting, but I think that any time I've said anything about the registry, I've been very careful.

DR. KAHN: You didn't say anything about it. It was Al Young who did it.

MR. WILSON: Al Young. He reported it. That's the way the press reported it. Wilson, put that in. Because I was upstairs with the Administrator with some other veterans complaining about the use of the registry, and Dr. Young's comments, and I quite frankly, we asked for his removal from this agency. I'm telling you right here and now -- you can put this on the record -- you guys use that Agent Orange registry for what you want to use it for, i.e., that business that Dr. Kahn is referring to, and then you use it for what you want to and then you defend it when you want to.

So why can't we see how many illnesses are in there, how many cancers, how many veterans? Why can't you tell us that? How many guys are reporting headaches? Are 180,000 reporting headaches? Or gastrointestinal? It doesn't have to be an epidemiological study. Why can't you give us a printout of what the data shows in there? Why are 180,000 veterans reporting headaches or stomach disorders or skin disorders?

You tell us selectively what you want us to have.

That's not right. What good is that registry? Why can't we know what's in there.

CHAIRMAN SHEPARD: Excuse me. I have to return to the committee and ask them if they have any specific recommendations or advice for the VA in terms of ways in which the registry can be used, and I certainly think that that is important information to have on the record.

DR. KAHN: Epidemiology is one way I wouldn't use it.

CHAIRMAN SHEPARD: I agree.

DR. HODDER: As I recall, that question really was discussed two or three years ago. It was started with a multitude of ideas, and at the time I think the group who were recommending it I don't think had an epidemiologist on it. Did you at the time?

CHAIRMAN SHEPARD: No.

DR. HODDER: But I remember, at least when I joined the committee, it was clearly stated it would not be used at least as an epidemiologic case/control study. It would, like any other registry, register people who had specific concerns and complaints. It might be a resource given the right question could be asked to go back to and identify case/controls. But I don't think anybody has come up with that question yet to go back

to look at. So it really would be a waste of time.

The other part of it, though, was the question of getting physicans for the veterans and having them contact the VA. And how that has worked out at different facilities is a different question.

GENERAL WELLS: I'm not sure that we have answered if the VA has gone far enough in implementing the recommendations, and I can only say to the people in the service organizations that I read it. And it appeared satisfactory to me. But I don't know what the feelings of the people are that have a much greater knowledge of the Agent Orange registry.

DR. KAHN: It's a long time since I've looked at it. I mean at the GAO report. I've been to Japan and back since, and some things like that get foggy in my head. But I wonder whether the problems of simply maintaining the addresses of the men in the files has been corrected, the ones that the GAO pointed out the first time around. Are we maintaining a clean address file so that if something does come up and you want to contact all 200 and some odd thousand men, you can do it?

CHAIRMAN SHEPARD: I'm saying that that is certainly the attempt. I don't think how effective that is has been tested. In other words, I don't think we have mailed out --

DR. KAHN: I understand.

CHAIRMAN SHEPARD: -- mail back cards, but that is something that certainly should be considered to find out how good is our address file currently. I don't think that that has been done. At least it has not been done by the VA. I don't know if the service organizations or state organizations have done that.

MR. SNYDER: With your list?

CHAIRMAN SHEPARD: Excuse me?

MR. SNYDER: With your list?

CHAIRMAN SHEPARD: Yes.

MR. SNYDER: It's available to us?

CHAIRMAN SHEPARD: No. Well, I don't know if it's ever been asked for.

MR. WILSON: You gave it to the court.

CHAIRMAN SHEPARD: We gave it to the court?

MR. WILSON: Who gave it to the court?

CHAIRMAN SHEPARD: I don't know. I didn't give it to the court.

MR. WILSON: The court has those names.

MR. SNYDER: Yes. Well, maybe the committee should consider recommending to you that, in fact, you look to see if

the addresses are good, and send maybe a sampling of either mailhouse people know how you sample -- what the appropriate sample size might be -- but send out 10,000 pre-addressed, pre-stamped, return notices or the envelope is stamped, so you can determine whether the addresses are good.

And if you find that most of the addresses from that sample are no good, then I think that suggests that you've lost one of he principal purposes of the registry, and perhaps it should be simply reduced to offering people an examination with a greater emphasis on steering them to treatment when it's needed, and explaining that 97-92 provides you with a priority for treatment. And not simply the letters that you've got now that suggest treatment could be had.

CHAIRMAN SHEPARD: I guess I would be of the opinion that a 65 percent adequate or accurate mailout list is better than no mail out list at all. In other words, if we can reach at least 65 percent of the veterans who we want to to give them information, that's better than not having that capability at all. I don't know. I guess we could debate that issue, but that is just my personal, unsolicited opinion.

DR. FITZGERALD: I'm a little confused as to why we want the addresses, the current addresses of Vietnam veterans

over say any of the other veterans. My understanding of the Agent Orange registry was originally it was to give an evaluation as to whether they had a treatable disease that should be treated. And that the other secondary purpose of it was to establish a record of complaints of illnesses so that if in later years it was determined that indeed there was a relationship between Agent Orange and the complaints that they had that it would be invaluable to them as an establishment of a claim for compensation.

I do not think it was intended to keep a current registry of the present addresses of all veterans anymore than any other veteran who comes to the Veterans Administration. From an administrative standpoint, I think it would be a nightmare.

MR. SNYDER: But it also cannot be used, according to general counsel interpretations, for establishing an early or effective date for a claim because for those people who may have examined two or three years ago but never filed officially a compensation claim, having had an examination that indicated "xyz" symptoms would not mean that you would get an effective date for your service claim back to the date of that examination.

So that purpose of that, if that was thought to be

part of it --

DR. FITZGERALD: That's not completely true. No. It would not give a date for retroactivity of a claim, but it would be another piece of medical evidence, such as all the pieces of medical evidence that come before the board --

MR. SNYDER: To potentially establish service-connection at all.

DR. FITZGERALD: -- to potentially establish it at a later date, and granted it would be valid at the time that it was later established.

CHAIRMAN SHEPARD: Well, I would certainly entertain a recommendation from the committee dealing with several issues, first of all, whether or not to test the validity of the address list. I think we have a handle on some of that by virtue of the fact that some time ago veterans on the registry were asked whether or not they wanted to receive ongoing information such as Agent Orange Review, and I forget now what the result of that survey was. It was some time ago.

But maybe it's time to do that again.

MR. SNYDER: I would suggest as much so that perhaps in the next meeting, or the meeting after, we'll have some result, and we can revisit the issue as it were, and see if we

should make a stronger recommendation that perhaps the effort to keep track of people is not useful and doesn't render the system useful.

DR. KAHN: Another possibility might be to a more rigorous consumer survey than the one we were able to do.

CHAIRMAN SHEPARD: I was going to ask Dr. FitzGerald if the Legion has kept up its effort in terms of that satisfaction survey that you all did with the registry?

DR. FITZGERALD: I don't think it has. I'm not completely knowledgeable, but I don't think it has.

CHAIRMAN SHEPARD: Has not been kept up?

DR. FITZGERALD: Has not been kept up, yes.

CHAIRMAN SHEPARD: Maybe if you wouldn't mind asking some folks in the Legion to see if there was ever a wrap-up report because I don't remember seeing a final report of that.

MR. WILSON: Mr. Lee did come here from Chicago or Indianapolis American Legion and did give us a report.

CHAIRMAN SHEPARD: I'm aware of that, Wayne. I'm saying a final wrap-up. In other words, if it has come to a close, if they have, in fact, prepared a final report, or if it's an ongoing process, if we can get another interim report.

MR. SNYDER: So far there was just the one published

report of that. I thought was literally phase one.

CHAIRMAN SHEPARD: No, that was the --

DR. FITZGERALD: I think we are confusing two issues here. There was a study that was done by the Veterans -- by the American Legion of Vietnam veterans in distinction to an inquiry out to the veterans as to what their reaction was to the Agent Orange examination.

MR. SNYDER: The American Legion had sponsored both of those.

CHAIRMAN SHEPARD: Way back. Yes. Satisfaction survey.

DR. KAHN: Should we have a look at a survey? We could make that a recommendation that somehow a survey be conducted. I'm not sure what the best form would be, but that's not my place to say.

CHAIRMAN SHEPARD: Okay.

DR. KAHN: And if it turns out that you get a black eye, then you've really got to think about what you're doing.

CHAIRMAN SHEPARD: Well, it was such a survey that was conducted by the VA. I think the first survey, in fact, was conducted by the VA which led us to -- even before the first GAO report came out -- to implement the process of mailing out

follow-up letters which had not been done previously.

DR. FITZGERALD: I think that has been the biggest complaint. Two big complaints. One, dissatisfaction on individuals as far as what they were examined for. And two, more importantly and more widely, dissatisfaction because the results of the examination were not explained to them. We followed up on that, and there was correction as far as that was concerned, although not complete eradication.

Again, time has passed, and I don't know what the satisfaction is at the present time.

CHAIRMAN SHEPARD: Okay. Do I sense, then, that the committee is in agreement that some steps should be taken to do a follow-up with the registry participants?

Any other comments on the GAO report?

DR. WALKUP: I'm sorry. I was late and missed what was probably the presentation on it, but I had noticed in the Administrator's response to the GAO report that in a number of instances reference was made that small budget and staff available for responding to some of the recommendations that GAO had made specifically about -- most of them related to monitoring complaints at the local level.

Could you elaborate on that to some extent and maybe

let us know what some of the constraints you're working with are and the level of compliance monitoring that you feel is able to be done around the issues that were identified here?

CHAIRMAN SHEPARD: They are basically three methodologies, I guess. One is the so-called systematic internal review system in which each hospital is required to do an evaluation of its own operations and procedures.

There is a systematic external review program, so-calle SERP program, in which evaluation teams go out to various hospitals and review their procedures, and then from time to VA, our office, has on a much less wide scale basis, but fair amount have gone out to various hospitals in which we sensed there may be a problem.

Either hospitals may ask for somebody to come, or we sense there may be a problem.

MR. CONROY: Are your visits always announced, Dr. Shepard, in advance?

CHAIRMAN SHEPARD: Announced to the hospital?

MR. CONROY: Announced to the hospital.

CHAIRMAN SHEPARD: I think for the most part, yes. I don't know that we've done any surprise visits, certainly not systematically we haven't done any surprise visits. I have

dropped in on hospitals from time to time unannounced, but not intentionally with the purpose of doing it.

So there I would say those three general areas in which the program is looked at.

DR. WALKUP: What were the resource or staff constaints that occurred in those areas that led to the Administrator's comment?

CHAIRMAN SHEPARD: I'm sorry. I missed that.

DR. WALKUP: What were the budget or staff limitations in those areas that led to the Administrator's comment that there weren't necessarily sufficient people to do that?

CHAIRMAN SHEPARD: I guess I'm not clear on what -- either I don't understand the question or I don't know the answer maybe.

DR. WALKUP: Well, in response to --

CHAIRMAN SHEPARD: Can you refer me to a page?

DR. WALKUP: Okay. I think it's basically pages 61 through 65.

MR. CONROY: I think what he's trying to get at, Dr. Shepard, has your budget been cut recently? Has your staff been cut recently?

CHAIRMAN SHEPARD: Yes. We've lost one staff person.

MR. CONROY: One.

CHAIRMAN SHEPARD: Right. Dr. Hobson has been assigned to another office.

GENERAL WELLS: I understood your question to be the people at the local level that manage the Agent Orange registry, not the people that came in from central office?

DR. WALKUP: Probably. I was trying to find out, and I'm still looking for my reference here. But, yes, thank you.

CHAIRMAN SHEPARD: As far as I know, there haven't been any cuts in the field specifically aimed at reducing the capability of implementing the Agent Orange registry, if that is your question.

GENERAL WELLS: But there were never any additional staff put in the field to implement Agent Orange, as I understand it.

CHAIRMAN SHEPARD: Oh, that is correct. That is correct. There were never --

DR. FITZGERALD: The individual hospital directives have the capability of assigning their resources to where they think the priorities are. Conceivably at a given hospital, Agent Orange registry might get a lower priority, but I don't think any of them would eliminate the Agent Orange examinations.

MR. WILSON: They ought to.

DR. FITZGERALD: They might decrease the number of people, and the length of time before an examination would be completed might increase. They are going to be under pressure with the reduction in monies and people which we have in the system.

DR. WALKUP: I'm still not finding my reference and I'll get it to you later. But what I guess I'm hearing from you is you don't have a perception with lack of staff support to ensure that concerns raised by the GAO won't reoccur?

CHAIRMAN SHEPARD: I don't think it's a question of staff support. This is my sort of off the top of my head impression. I think it's more a question of implementing a fairly -- on top of everything else, implementing a program for which additional resources have not been provided.

I think we have made a reasonable effort to incorporate those recommendations provided by the GAO that we think would have some likelihood of success given the staffing and so forth. Obviously, up to a point if we could have somebody at each hospital whose sole duty was to do the administrative aspects of the Agent Orange registry program, and a physician whose sole duty it was to do all the examinations, then probably the system

would perhaps run a little more smoothly, or we could do more examinations in a given time, but we've never been provided those resources.

DR. WALKUP: Essentially that's the core of the point that with the examinations or with follow-up letters, or those sorts of things, of the resources aren't there, or the people who have to deliver those services are having to deliver them in addition to the baseline responsibilities they've already got, we have had and we'll probably continue to have delivery problems at the local level.

CHAIRMAN SHEPARD: I think it's a base -- I'm going to ask Layne in a minute to talk. But I think you have to keep bearing in mind that the Agent Orange program is in addition to the basic, many other basic, fundamental roles and responsibilities that the VA health care delivery system has. And clearly the number one priority is to deliver health care for patients who are ill in hospitals. That includes all veterans, whether they be Vietnam veterans or a number of other veterans.

So I think one has to keep bearing in mind that what we do for any given group of individuals has to be bounced up against the total scope and responsibility of a hospital's charter. Layne, did you have something to say?

MR. DRASH: I just want to make the observation that one of the concerns of the General Accounting Office when they were meeting with us

was about the ability of our particular office to undertake quality assurance reviews of Agent Orange Registry and Public Law 97-72 activities. They were cognizant of the level of our staffing at the time of the review which at that time was 16 people on board.

Last year, the Agent Orange Projects Office underwent a reduction during which we lost Dr. Kang's office, that is the Research Section, which relocated to the Armed Forces Institute of Pathology, a detail from the Washington VA Medical Center.

Part of our problem has been the fact that on our staff, a very small staff, we have lost Dr. Hobson, the Deputy Director. Also we have only a very small number of professional staff who can undertake a review, an ongoing review, of the Agent Orange Registry. We have multiple duties within our program. As for example, we have one person who is designated as the Agent Orange Registry coordinator who handles this function in addition to other assignments. The quality assurance function for the Agent Orange registry is only one part of that individual's

job.

Be that as it may, since the GAO review, and even prior to that, we have been planning and working on the development of some type of quality assurance program so that we can conduct ongoing on site reviews of the registry.

The amount of dollar resources that we have are extremely limited as regards travel opportunities. We just don't have a great amount of travel dollars. We have requested such resources on numerous occasions, but again, as was pointed out earlier, the realities are that resources, in general, are being cut, and quite truthfully, we're taking our fair share of that cut.

So we have sought alternative means. I believe you have a supplemental circular which points out part of our plans for a quality assurance review of the registry. It's going to be an ongoing review. We're going to look at it to see if it's working. We'll wait for comments back from the field, and if they're negative, then we'll adjust it or, we'll terminate or revise a particular type of quality review.

Going back to the original aspect of the concerns about GAO, I think that was their primary concerns in terms of budgetary staffing requirements during their review of the registry program.

Be that as it may, we are still continuing to implement innovative programs to conduct quality assurance reviews, in concert with other ongoing reviews, that is, the Systematic External Review Program, Systematic Internal Reviews, et cetera.

In conclusion, we're doing the best we can with the resources that we have.

CHAIRMAN SHEPARD: Thank you, Layne. Any other comments?

DR. KAHN: Well, whatever the small, incremental changes that you're able to make and are inclined to make, the perception out in the boondocks is that the program is a charade. I go out and talk to veterans groups and veterans call me; we have commission meetings with public comment which veterans attend and speak, I've been all over the state, and the perception is that the program is a sham, a fraud.

CHAIRMAN SHEPARD: Well, to say it's a fraud I think is a little bit strong. I don't think --

DR. KAHN: That's the perception.

MR. WILSON: How about sham?

DR. KAHN: That's the perception, Barclay. Okay?

CHAIRMAN SHEPARD: Okay.

DR. KAHN: Whatever --

CHAIRMAN SHEPARD: If you have some suggestions, then, I would like very much to have your input.

MR. WILSON: We've made suggestions over the years. And you never take any. We told you, Barclay. It's a matter of record.

CHAIRMAN SHEPARD: Wayne, I wasn't addressing my question to you. Peter, would you care to respond to my suggestions, or request for suggestions? If you can think of specific areas in which we can improve the Agent Orange registry program, I would really like to -- and it may be that you should give that some more thought and write them down and send them to me.

DR. KAHN: I'll write you something down. Most of my criticisms the GAO and others have already voiced. That when the veterans are taken care of inside a VA facility that they be treated decently. They aren't, with a few exceptions. There are a few hospitals that do.

Secondly, that they get proper follow-up, and that the follow up be explained to them in layman's language. Those are the two principal complaints that we get. There are other minor ones that occur occasionally. Fixing those two things would go a long way toward giving the veterans some confidence

in the system.

MR. WILSON: Barclay, you can get pissed off all you want. I care about the veterans, not what you think. I can tell you that. Put that on the record. You ought to start caring about the veterans.

DR. HODDER: The question I guess I would raise is is this a specific thing of VA hospitals, or is this -- well care in almost any hospital is a serious problem.

DR. KAHN: That I don't know.

DR. HODDER: That's another issue here that is a little difficult. Part of it is also the expectation -- (let's not put it that way). I wonder how the veteran is approached when he is asked for the opinion. If he is approached in a biased way by whoever is asking you'll get a negative response if you're going to go to him and say aren't those things lousy, et cetera. That's one thing.

DR. KAHN: Well, we don't do that. The complaints that come to us come unsolicited.

DR. HODDER: But the other one I would tell you is that if you ask people about how their medical care is you

usually get a fairly positive response. If you ask people how their well care, i.e., their health screening and physicals and things like that, you usually get a fairly benign or negative response.

I don't know that I have a frame of reference to tell you how good or bad that is, but --

CHAIRMAN SHEPARD: Yes. I also think it's probably fair to say that the GAO report was done without benefit of very much medical input. I personally have talked to the individuals and there are times when I was appalled at some of the judgments they made because they clearly were medical judgments for which individuals require a fair amount of medical training.

And we did point out some of those points to them, and I think finally they did agree that yes, they -- for example, some of the reviewers were going through and making judgments as to whether diagnoses were accurately made in the reports based -- and these are things that require medical knowledge, and very in-depth medical knowledge.

Some of these things, the differences are fairly subtle, and I don't think that any non-trained individual, and non-medically trained individual really has the capability of making many of these value judgments and quality of care

judgments. Now, whether or not a veteran is happy with the care he gets does not necessarily correlate with the quality of the care. It may, but I say it does not necessarily.

Many people are very unhappy because they are sick. And many people who don't get better are unhappy and tend to blame the care they're getting as a reason for their not getting better. Some diseases don't get better.

GENERAL WELLS: One of the questions that I had was I had a problem with your regulations. All right. But I have here something that you sent us that was dated September 25, 1986. Now, is this what was the result of the GAO report to implement those changes?

CHAIRMAN SHEPARD: Yes.

GENERAL WELLS: Well, I think it's rather difficult to evaluate changes that just went to the field the 25th of September.

CHAIRMAN SHEPARD: Thank you. That's true.

GENERAL WELLS: And I think we ought to say, okay, they are trying to implement the recommendations, but I think it's too early to say whether we have.

DR. FITZGERALD: I think that what we're bringing up here is the fact that there are valid complaints out in the

field as you would anticipate. That there has to be a constant upgrading of the instructions given to the people out there to be sure that they are accomplishing what is originally intended.

When you have an overworked staff and one doctor has to do Agent Orange examinations, and he doesn't want to do Agent Orange examinations, you're going to have a disgruntled individual, who is not going to satisfy that veteran.

It is that individual who has to be constantly monitored, and the other valid complaint that we've repeatedly said is the briefing of the veteran subsequent to the examination as to what they found. In some hospitals this is done very well. In a significant number, it is not.

DR. KAHN: You might consider taking a few of the hospitals in which it's done well, and I believe Wilmington is one of them. They used to have a marvelous nurse. I think she's still there. I don't remember. She's wonderful. We get nothing but praise about that lady. And she just makes the whole examination system work smoothly for the people down there.

Why not take a couple of hospitals where you have good programs that work and clone them elsewhere?

CHAIRMAN SHEPARD: Well, we have made some attempt along those lines. Boston VA has a very good system, and we

have solicited comments and suggestions. So I think there are some shining stars in the field, and we have attempted to identify them and have solicited comments from them and have tried to see what works in one place to, as you say, clone to another place.

DR. KAHN: That girl in Wilmington is worth her weight in gold to you folks.

DR. WALKUP: I think an underlying part of that discussion that is important to remember -- I know sometimes I forget and I'm sure everybody else does -- is that the perception of a sham that I hear, too, and yes, it's from people who have some other problems often, and maybe get set up -- but I think there are just some structural things that are within the system that make it possible for people to have that perception.

Their understanding of what an Agent Orange examination should be is something that tells you whether you've got Agent Orange or not, or whether you have something wrong with you and what it is and how come.

There is no way anybody can deliver on that. So structurally, they're going to be disappointed. The delivery system for that, as you pointed out, is not a separate delivery system. has a lower priority than ongoing services, and is an

additional workload added on to people. A volunteer pops up within the organization now and then who will make it work but it's not because of the organization or the structure of the program. It's in spite of it.

And I think that we should expect people to be very satisfied with the Agent Orange program, or to sell it as often as it's been sold as the Veterans Administration or the nation's response to the needs of Vietnam veterans sets them up to have a very negative perception of their experience there. And some clarification of well, this is the best we can do with the staff that we've already got, and they're being cut back, and we've got additional demands, and we can't tell you anything anyway might be somewhat in order as a leavening to the expectations that people have got there already.

CHAIRMAN SHEPARD: Okay. Thank you. I think we need to move on. We have a couple of other things that we need to cover. We've asked Mr. Conroy from West Virginia to give us an update on the various state activities. Chuck, can you fill us in.

STATE ACTIVITIES

MR. CONROY: Thank you, Dr. Shepard. Knowing we are running behind schedule, I'll try to keep this as brief as possible. I distributed, I think, to all the committee

members, and I've left back at the table a couple of handouts. One is a map indicating states that have programs, commissions or studies; states without those studies; discontinued programs; and the blank states are states that didn't respond to my inquiry.

I would appreciate it if you would look at this very much as a preliminary or a working draft because I have already been advised by a representative from Minnesota that I have prematurely terminated that state's program.

Let me explain methodologically how I conducted this survey. Those states that we were pretty much aware of the fact had ongoing programs, I corresponded with that contact person directly, simply because I knew them from coming and attending these meetings.

Those states in which I was unsure of whether they had an ongoing program or activity, I corresponded with two sources. One, the Department of Health, and the second being the Department of Veterans Affairs. What I found is that most states that have a program, organizationally tend to house that program within either one of these two agencies, Health or Veterans Affairs.

So as you can see, there are 13 states that I have not

received a response yet from. And I'm at the point now of actually phoning those states and trying to solicit some more input from them.

There are a number of states that I have indicated on this map that I know at one point in time had ongoing programs, but I've not heard from yet. For example, Maine, Ohio and Wisconsin. Wisconsin was for funded awhile. Then they were de-funded. Now, I understand they're back in business again.

So I would sincerely like to fill out all the blanks on this state map. But nevertheless, I think there are some interesting trends that I would just like to highlight here. The first being those states that are terminated, and again, I think I mentioned Minnesota. There was a representative that was faithfully attending our meetings Jerry Bender -- I understand he is no longer with the program.

And that organizationally the Claims Office of the Department of Veterans Affairs will be responsible for the Agent Orange Program in Minnesota. There was a Mr. Olson here who, I believe, had to depart early for a plane, but I will be getting in touch with Mr. Olson again. He tells me that they are going to continue the program.

The other states that have terminated their programs

did so primarily because they were defunded by their particular state legislatures. And most -- in fact, all of them to this point in time have issued a final report and have sent that report to me.

So any of you that are interested in receiving a final report from those states that have terminated their activities, I have copies of all those individual state reports.

Some of the states did some rather innovative things, I think, before the programs were terminated. For example, the State of Tennessee, prior to their termination, got involved in the Agent Orange litigation and the law suit and actually got in touch with all -- they have some 94 counties in Tennessee.

They got in touch with county sheriffs and got involved in that claims process before they terminated that program. So some of those states, as I say, did some innovative things. I would like to just highlight what some of the states with ongoing programs are doing for you.

Initially, the state of California has, I think, got an excellent idea going if they can solicit the cooperation of the Defense Department. I am advised that what California is trying to do is get a listing from the Department of Defense

as to all the Vietnam veterans who served in country which they would like to bump against that state's tumor registry.

They tell me they're having some difficulty in terms of the confidentiality of those records in securing them, but it's one that I think is well worth their pursuing.

The State of Connecticut has put out a number of self-help guides, a little pamphlet on testicular cancer and just a number of educational pamphlets and brochures.

Illinois is a state, again, that was active, and went inactive for awhile. It is now getting back on the bandwagon. Back in 1983, the State of Illinois sponsored a symposium on Agent Orange and was fairly well attended. They lost their source of funding, and now I understand are coming back on line, and within the next six months there is to be appointments made to that state's Agent Orange commission.

The State of Louisiana is a new state that has very much just come on line, and is organizationally just feeling its way around, as is the state of Maryland. By the way, I have extended invitations to a couple of these states to appear at these meetings. I talked to a Mr. Linden from Maryland. Or a representative?

MR. WHITE: We have Mr. White.

MR. CONROY: Mr. White. Okay. And I did inform him of this meeting, and he said he would have try to have a representative here. I would like at the end of my presentation perhaps to yield some time to Maryland and Michigan who have respresentatives here today to let them explain about some new efforts they've got in those states.

Massachusetts, most of the committee members are aware of the mortality study we heard last time, and the health survey. The State of Michigan, we have a representative, Mr. Roy Klaviter, that I will yield some time at the end of my presentation.

New Jersey, I think, was eloquently represented here by Dr. Kahn and Wayne and everyone is aware of the fine work they have been doing.

New York, most of you who were in this survey early on, realize that the State of New York had a temporary commission on dioxin exposure, but went out of business. It was supplanted by a dioxin outreach program. To date, they have issued two newsletters, have established a very extensive bibliography on dioxin and intend, I understand, to continue publishing that newsletter.

So they are back up and geared up and working again.

The State of Oklahoma has conducted a rather limited health survey, about 1500 veterans, but is still conducting that survey.

Pennsylvania, most of you are aware of the physicians educational program which was launched, the cassettes by Pennsylvania. They are also now in a process of developing their own questionnaire and health survey. South Carolina is a new state that just came on board. Legislation was enacted at the end of the fiscal year, and so they will be gearing up.

South Dakota is in the process of conducting a survey. Again, some of these states by virtue of the size of the state, the surveys are very limited. South Dakota, I guess, has distributed about 1500 questionnaires or health surveys thus far.

The State of Washington has developed a very fine self-help guide based a lot on the information that New Jersey had prepared earlier. And West Virginia, of course, is still involved in medically testing Vietnam veterans and to date we have tested close to 500 of those veterans.

As I said, I would like to make this a draft because what I would like to do, and what we are going to do, is to put the information in the form of a pamphlet, and we're going to list the contact person with an address, and then a brief

description, similar to the oral presentation I've given, indicating what type of activities are being conducted, and we'll make that available to anyone that would like this when those are available.

CHAIRMAN SHEPARD: Thank you very much, Chuck. That's very helpful. Yes, I would certainly encourage that because I think we need that kind of an inventory, and I think in pamphlet form I think it would be very helpful.

MR. CONROY: Yes. One thing I just might mention, you know, the feelings in terms of Agent Orange certainly still do run strong. In my correspondence with these different agencies, I told them the purpose I was soliciting this information for and offered all of them a final copy of the report.

I was told by a couple of southern states that they had no Agent Orange programs going, were not interested in getting into the Agent Orange business, and were not interested in receiving any information on Agent Orange.

And I also thought it was interesting from the State of Mississippi I got a response that indicated that they thought there was more herbicide used in that particular state, Arkansas and Louisiana than was ever sprayed in Southeast Asia.

So the feelings run --

MR. SNYDER: Probably true on the rice.

MR. CONROY: At this point I would like to defer to my colleagues, first from Maryland, Mr. White.

MR. WHITE: We've only had one meeting, and it was Saturday. I'm surprised you found out about us so fast.

CHAIRMAN SHEPARD: You want to come up here, Mr. White, and Dr. Klaviter, why don't you come up here and be up here where we can all hear you.

MR. WHITE: The Governor for the State of Maryland, Harry Hughes, he signed the bill the 5th of September. We had our first meeting this past Saturday. We are about to elect an executive director. We have to also appoint one more person for our board because we had a female veteran who got a new position, and suddenly moved to Texas.

So we'll be keeping in touch. As you know, I've been attending this (committee's meetings) for quite some time, and I plan on continuing to attend until this thing is finalized. I am definitely looking forward to working with everyone here because this problem has to be resolved, especially with me myself being a Vietnam veteran and I have my problems with Agent Orange.

And hopefully things can be resolved.

CHAIRMAN SHEPARD: Thank you very much. Would it

be possible for you to share with Chuck and our office also the implementing legislation. Is there a governor's order, executive order? I'm not quite sure what the process was for establishing the commission.

MR. WHITE: What it was --

CHAIRMAN SHEPARD: Just for our file so we have some idea.

MR. WHITE: Yes. After working with the New Jersey Agent Orange Commission and getting some ideas we went home and put together a bill and took it to a delegate, and they were looking for some votes this year because it was election time this year, and we got it through. And that's basically it. The House passed it. The Senate passed it. And the governor, he wanted to be senator, and he signed it.

(Laughter.)

MR. SNYDER: And it survives him.

MR. WHITE: It survives him because he didn't make it.

CHAIRMAN SHEPARD: Mr. White has provided to us a nice letter announcing this and also a list of the members of the commission.

DR. KAHN: Did they give you guys some decent money to work with?

MR. WHITE: Well, I'll find out when I get back, but the last I heard we're going to start with -- the bottom price is 150,000 We have a lot of lottery games in Maryland so this should be getting on all right.

CHAIRMAN SHEPARD: Okay. Anything else? Any questions for Mr. White?

DR. KAHN: I guess you don't really know what you're going to do yet since you've only had your first meeting?

MR. WHITE: We're leaning on you a lot. Quite a bit.

DR. KAHN: All right.

MR. WHITE: I have a vague idea where I would like to see it go. I have yet to hear anything about a chromosome study.

DR. KAHN: Oh, that's a can of worms. That's a real can of worms. Talk to me later.

MR. WHITE: Okay.

CHAIRMAN SHEPARD: We'd be happy to -- if you have any thoughts, or we can set up other meetings just while you're getting off the ground. I've tried to make myself available to any commissions that are beginning to start up, if I can be of any help in talking to the commission or making suggestions.

MR. WHITE: Oh, we're going to be getting -- that's

in the letter. We're going to be getting in touch with you, bring you to charm city.

CHAIRMAN SHEPARD: Very good. I just wanted to --

MR. WHITE: Put you up and feed you and everything.

CHAIRMAN SHEPARD: Seriously, I would be more than happy to do that. And would welcome an invitation to do that.

MR. WHITE: Right. And please everybody keep in touch. That is how this thing is going to work, everybody networking.

CHAIRMAN SHEPARD: Congratulations. Good luck.

MR. WHITE: Thank you.

CHAIRMAN SHEPARD: Dr. Klaviter.

DR. KLAVITER: I appreciate being able to attend and take a few minutes of your time. I have two purposes in attending your meeting. First is to learn from those who have worked in this field and have been trying for some time to be of assistance to the Vietnam era veteran.

The second purpose is to ask for input and help on the efforts in Michigan. We serve at the pleasure of the governor and the legislature in Michigan. The legislature for a number of years considered bills that would enable us to do health studies for

Vietnam era veterans, and this last year, passed a budget resolution setting aside a small amount of funds, $ 150,000, really for a pilot program, and for planning purposes.

So that amount of money is available to the Michigan Department of Public Health and specifically to the Center for Environmental Health Sciences which is an internal consultant group within the Department of Public Health that serves health and other state agencies.

Our planning group includes myself, and a medical consultant, a person in the epi studies area, and a person who is literate in terms of computer technology.

We've been actively soliciting input from veterans groups in Michigan. We have asked for their ideas on what would be of value to the Vietnam veterans and specifically related to Agent Orange exposure and those attendant concerns.

We've gotten some good input from veterans groups, and our first thoughts on what we would do are as follows:

First, to establish a registry in

Michigan so that we can find these people and be in touch with them. We have used the Michigan Vietnam Bonus list, this was a bonus that was given by the State to people who served during the period or the Vietnam war. We would very much like to have the names and addresses of the Michigan residents from the Agent Orange Registry.

We would also like to have the the Michigan residents from the Disabled Veterans registry. Our purpose in getting both registries is to set up a d-base three merge file with a current address.

see it now.

Second, we want to be able to give information that will be helpful and informative. I think what's required here is bullets of information written in common parlance that are clear and that are useful to the Vietnam era veterans. And I invite your help in obtaining those pieces of information.

I see here in the advisory committee and the friends,

the supporters and interested parties, a group of medical scientific and technical people that collectively have all the information that's available. We need the current information written in common parlance language, that is clear and understandable to the veteran.

And, we have to distribute it. It has to get to the veterans or it's worthless. We have an initial agreement, and statement of support from the Michigan Association of County Veterans Counselors to establish a network of Agent Orange information centers throughout the State of Michigan, using, or through the Country Veterans Counselors offices. The County Veteran Counselors talk to veterans everyday. They have agreed to work with us in terms of distributing information.

As we go along, there will be some thought given to the possibility of a health survey. I don't know if I want to say anymore about that, or how we would do it, because we're just approaching the first step. With more funding support, a health survey could be done in the second year.

Thank you very much for your time.

I might just say in a personal vein that I'm a veteran with Vietnam service as a member of the Navy seal teams. I have a Ph.D. from the University of Minnesota, and several years of experience in environmental health.

CHAIRMAN SHEPARD: Well, thank you very much.

DR. KLAVITER: Yes, sir. Thank you.

DR. KAHN: We might be able to help you with the question of maintaining, shall we say, continuity of state resources.

DR. KLAVITER: I would be very happy to talk with you about that.

DR. KAHN: It wouldn't take long.

CHAIRMAN SHEPARD: I would also say that I congratulate you for establishing the commission and I wish you great success in the future. I also would like to make myself available to you and your commission in any way that I can.

Do you have -- let's see. You were established again

legislative act. Obviously, you have an appropriation. Do you have a list of members of the commission? Is it a commission? Do you call yourselves a commission?

DR. KLAVITER: No, we don't as a matter of fact.

The legislation was a line item in the appropriations budget to the Department of Health and the Center for Environmental Health Sciences to set up the program. I can give you a copy of that. But we don't, as a matter of fact, have a formal commission.

CHAIRMAN SHEPARD: But you are tasked to work through the county health veterans counselors?

DR. KLAVITER: Well, we've chosen to do that.

CHAIRMAN SHEPARD: Right. I think that's a very smart move.

DR. KLAVITER: Well, yes. We've got to ask them what would be helpful to the Vietnam veterans.

We'll see.

CHAIRMAN SHEPARD: So you're still in somewhat of a formative process?

DR. KLAVITER: Yes, we are in a formative process.

CHAIRMAN SHEPARD: Well, if we can be of any help to you, please call on us.

DR. KLAVITER: Right. Thank you.

MR. CONROY: Dr. Shepard, I would like to yield the final portion of my time to New Jersey here.

MR. FALK: Just very briefly, Barclay, in light of the presentation, New Jersey has some new legislation that I wanted to bring forth. I'm Allen Falk. I'm chairman of the New Jersey Commission, and since the results of the Pointman Project came in, we've had two bills introduced in the state legislature, in the Senate specifically.

Right now, the first bill is Senate 2591 appropriates the sum of a million dollars to the commission to continue on to the final stages of the Pointman Project. We think that's a very substantial commitment by the legislature and governor.

Of course, we have to now go through hearings and give the details which Peter will be working on as far as where exactly the money will be going, but also even more interestingly

is a companion bill that has been introduced to establish a consortium, a scientific consortium on dioxin research in general in the State of New Jersey involving the medical schools and universities. And there is approximately two million dollars that will be devoted to that project under the bill, including hopefully obtaining of the machinery that currently Christoffer Rappe is using and the CDC is using so that that will also be available in the future for dioxin research directly in New Jersey.

I would like to welcome the new Agent Orange programs. We were the first state commission in the country. We were enacted in '79. You can see the lead time that it takes to come up with a meaningful program. It's a long hard process, and I think, as you also all saw today, the frustration level of the Vietnam veteran is no less today than it was in 1979. And Wayne is sort of the conscience of the veterans, and you guys have to put up with him a couple of times a year. We have him everyday, and he keeps after us, and he reminds us what we're there for.

And I sort of feel sorry for the new people because that lead time is so long. You've got to get right into it, and get to work, but we wish you the best.

CHAIRMAN SHEPARD: Thank you very much, Allen. We

appreciate your appearance.

MR. CONROY: That's it, Dr. Shepard, and I hope, as I said, to have a brochure available for distribution to the entire committee and interested members of the audience in the not too distant future.

CHAIRMAN SHEPARD: Thank you very much. Any other questions for Chuck?

(No response.)

VETERANS SERVICE ORGANIZATIONS REPORTS

CHAIRMAN SHEPARD: Very good. Okay. Let's move on to our next agenda item which deals with the veterans service organization reports. We've asked Dr. FitzGerald, Hugh and Keith Snyder to tell us a little bit about their various respective organizations activities related to Agent Orange. Dr. FitzGerald?

DR. FITZGERALD: I think we have covered this pretty well in our criticism of the complaints concerning Agent Orange which are intended to be constructive, and I don't think I have anything else to say.

CHAIRMAN SHEPARD: Okay. Hugh?

DR. WALKUP: I'll keep it brief, too. I've shared again the constructive criticisms which also I hope were taken that way that are shared by a number of people. One observation

I would like to pass along on what's happening in the field is that with continued funding cutbacks, we are seeing community-based organizations that used to provide supplemental service, especially targeted to Vietnam veterans and people who had limited access to the system falling away.

To some extent, those were supplemented for a time by Vietnam Veterans Leadership Projects or volunteer organizations. The lack of funding VVLP, that's falling away, and we're continuing to see an erosion of those kind of community-based services available to veterans.

And I think that puts increased responsibility on the Veterans Administration which is also having funding cutbacks, on the traditional service organizations which are not able to be all things to all people, or to necessarily stay on top of that.

And particularly, I think, for the Vietnam veterans one of the major impacts that we're going to be seeing in that kind of a resource situation is with the cutback in the vet center program that really for a lot of veterans, I think, has been the major source of information and support about Agent Orange that has been relative to the needs of most veterans. That program is already in a phase-out mode, and I understand to

be gone next year. It's going to be a major hole in services to Vietnam veterans. Now, I'll be proposing a resolution for us later that the committee encourage the Veterans Administration to take another look at the status of the vet centers because of their impact on Agent Orange as well as other Vietnam veterans issues.

CHAIRMAN SHEPARD: Thank you, Hugh. Keith, do you have something to share with us?

MR. SNYDER: Just briefly a reminder about that NBC movie on November 10. It actually is a very dramatic and very powerful movie that I think will lead to a lot of people, a lot of veterans and family members coming to us. So our organization is looking for answers, looking for help. And we should anticipate that kind of a increased number of responses. If you Chuck, are able to get back to the state people you've been in touch with and remind them, oh, by the way, November 10th.

People could also capitalize, I think, quite successfully on the publicity that NBC is putting into it that should be more obvious very soon. But many times, I think state agencies, those commissions would be able to go the local NBC affiliates --

MR. CONROY: We've already been contacted and asked if

we would prepare something for the presentation of that movie.

MR. SNYDER: But the whole focus of the movie leaves you in the last few minutes to feeling like you just have to act. You can't just sit there and flip channels. You have to do something, and I think what is to be done then is something that we can help shape. So I would remind people to tune into that.

The only thing else I would comment on is that I have at lunchtime passed out the two drafts of resolutions that we had referred to earlier this morning. I think each of you has -- it's a three page item. The first one is on interim benefits and that joint meeting we wanted to have with the other committee Is that something that now would be appropriate to deal with?

CHAIRMAN SHEPARD: Yes. Did I get a copy?

MR. SNYDER: Since I went back to my office and had the word processor available, then I could plug in these "whereas's" and "therefore, be it resolved's" and I apologize for that. It's some of the legal training that I was inculcated with.

But I think what is here is not anything different than what we had discussed this morning, or if it is then I need to be reminded of that. Delete things, or add things. Let me

know. The purpose of this interim benefits resolution was to encourage Dr. Shepard to encourage the Administrator to either administratively or if they view it requires new legislation, to then seek new legislation to extend until such time as the Agent Orange epidemiological study is out there and giving the VA some other guidance, reopen that window of interim temporary benefits, and that's what the purpose of that first resolution is.

Does anybody have any problem with the wording of that?

DR. KAHN: I think this is fine.

MR. SNYDER: Do you as the chair want to call for something?

CHAIRMAN SHEPARD: Call for discussion. Are there any comments? First of all, see if there are any questions or comments on it?

DR. KAHN: I think we discussed this to death earlier today.

CHAIRMAN SHEPARD: Yes. I just wanted to make sure that everybody had a chance to read it, and I had the sense that there was a general agreement instructing me to forward this to the Administrator?

MR. SNYDER: And we would include this in our report.

CHAIRMAN SHEPARD: Yes.

MR. SNYDER: The second item is also what we discussed this morning, I think at length, was to try to coordinate with the Environmental Hazards Committee possibly at the very next meeting -- I'm not sure if on that short notice it's possible to coordinate and get us invited.

CHAIRMAN SHEPARD: It's an open meeting. You don't require an invitation. I pointed out it's the 17th of November. It will be upstairs in the tenth floor in the Omar Bradley Conference Room. I encourage your attendance at that.

MR. SNYDER: Is it an open forum in the sense of anybody could ask questions at virtually any point, or is it kind of like this that you wait until the end and you submit written questions or what --

CHAIRMAN SHEPARD: I think it's a little more structured. I think that in order to get on with the business of reviewing scientific information that it's more helpful to have a time on the agenda.

Fred, is the agenda finalized? Is there -- okay. So is it fair to ask if there could be a time slot on the agenda to --

MR. CONWAY: It's fair to ask.

CHAIRMAN SHEPARD: Somewhat different. Fred is the executive secretary for that committee. He is not the chairman. The chairmanship of that committee resides outside the VA, and that is another question that is on the agenda for this afternoon.

DR. KAHN: Before we conclude with these two, do we want to actually vote for these things so that we have a clear expression from the committee?

CHAIRMAN SHEPARD: I am assuming that the first received a unanimous vote, not hearing anything to the contrary. I would be happy to go through the formal process.

DR. KAHN: No, no. If it's agreed that it's unanimous that's fine. What about the second?

CHAIRMAN SHEPARD: We're in the middle of discussion there.

MR. SNYDER: The only extra point, I think, of having a joint session is more than just being -- knowing that we can come, if we want, as members of the public, let alone as members of the committee, was to I wanted to ensure that we as members of this committee could, in fact, have maybe some special status and be able to ask questions more freely perhaps of the other committee than ordinary members of the public perhaps.

Is that something that is unrealistic to ask for?

CHAIRMAN SHEPARD: It's certainly not unrealistic to ask for. No. My only point in bringing it up for the next meeting, I thought you were going to say a comment about having a joint meeting. I don't think that would be possible for this next meeting, but to lay the ground work for a joint meeting at the subsequent meeting. Am I understanding you correctly or not?

MR. SNYDER: What's the sense of anybody else? Our next quarterly session we try to run together a larger room with all of us at a big table, and this next one simply be available to go and participate as anyone else can.

MR. WALKUP: It sounded before -- well, it depends on our schedule. But it sounded before as if that committee has got a tentative schedule for April or --

MR. SNYDER: What's the next one after this?

MR. CONWAY: It probably would be tentatively set for March or April of '87.

MR. SNYDER: And ours next would be ordinarily January.

CHAIRMAN SHEPARD: Or February.

Since our reorganization there has not been a set time, a scheduled time on which we meet. So that

at least gives us a little flexibility. And I would suggest that at the next meeting of the Environmental Hazards Committee ask that the possibility be raised about having, if not a joint meeting -- I don't think a joint meeting is necessarily, in my opinion, necessarily a good idea -- but to have it at a time when the two committees could get together for discussion.

In other words, they've got a specific set of goals

What I would propose, just for discussion, is that we schedule them so that the meetings are on contiguous days. So that people who had to travel from out of town could avail themselves of the opportunity of sitting in on that committee's deliberations.

And then we would have a meeting on the following day or whatever. We could discuss that. I mean there are a number of options. I think it would be, well, difficult to run all sessions together concurrently because they have, as I say, an agenda that is a little different from ours.

MR. SNYDER: Then the 17th, then, you would be available to ask and coordinate, try to coordinate that with them?

CHAIRMAN SHEPARD: Yes. But I would also encourage any of you who can be there for that meeting. But I plan to be there.

MR. SNYDER: Well, I think there is some value to be had in seeing how they operate and being able to add what we can, and if that's as easily done by being there and commenting at appropriate intervals, then that would be fine. And if you could try to set the next meetings of both committees, or to see how well you can coordinate that so that either one begins in the afternoon, the other in the morning, or somehow over-lapping but back to back, somehow maybe that would be good.

CHAIRMAN SHEPARD: Yes. I will take it upon myself to discuss the matter with Mr. Conway and see if we can set up a time on their agenda for the upcoming meeting where members of this committee, myself included, can address these concerns to that committee.

MR. SNYDER: Okay.

MR. WALKUP: A couple of parts to that I would like to stress are, one, it may not necessarily be suitable for us to postpone our next meeting until that meeting happens, depending on what other issues are up for us. It sounds as if there could be a number of things that we maybe should deal with sometime before nine months from now which would be next April or May.

I won't go into them. We've been talking about them.

Especially if there is a conference planned next fall, or if some of these things, the studies that are coming out come up, there may be some things we want to deal with before waiting for their meeting.

So maybe our meeting after next would be a place to look at it, which is my second point that despite open invitations, I really appreciate the wording of your resolution that encourages us to have a joint meeting. That at least part of our meeting be set up that way. And we've been talking about doing that since before that committee was formed. I think that would be very useful.

CHAIRMAN SHEPARD: Any other comments or questions on the resolution?

(No response.)

CHAIRMAN SHEPARD: I will then assume that this is a unanimously accepted resolution, and I will pass it along to the Administrator.

MR. SNYDER: The third piece of paper, there was a list of things that we had talked about this morning that we were looking to get copies of. And either you, Dr. Shepard, or Mr. Conway, I think commented that minutes of the Environmental Hazards' meetings would be made available, the summary minutes.

And Mr. Hickman had commented that the rating decisions for the interim benefits cases, he would make those available. I just made a list of those things here. I would add, I think, a number four item. There was a reference in the GAO report to a videotape on the Agent Orange program that I believe that you had been instrumental in preparing that described the various aspects of the VA's Agent Orange program.

I think it would be useful to us as a committee if we want to describe to our members what's out there and what's available through the VA, maybe this videotape would be a way to do that. Would you try to arrange perhaps for the next session for us to see it? I don't know what that would involve, but that might be something, 23 minutes, that would both educate us and tell us what's there that we could pass along to our respective organizations.

So I would request that you try to make arrangements for that to be available to us.

CHAIRMAN SHEPARD: Okay. Now, we have in addition to the videotape "Agent Orange Update," there is prepared a shorter videotape which was aimed to instruct VA, primarily medical administration service personnel dealing with veterans on a face to face basis.

MR. SNYDER: So that is a separate tape?

CHAIRMAN SHEPARD: Yes, it's a separate tape so we have two tapes now I think this committee did look at an earlier version of the "Agent Orange Update" which has not been released.

MR. SNYDER: And the other -- the "Agent Orange Update" is --

CHAIRMAN SHEPARD: The other one has been approved for release, and I think is now in the process of being copied and ready for release?

PARTICIPANT: Within the immediate future, the next few weeks.

CHAIRMAN SHEPARD: Okay.

MR. SNYDER: It's the "Agent Orange Update" one that still in the works somehow?

CHAIRMAN SHEPARD: Somehow.

MR. SNYDER: What's that called? "Agent Orange Update"?

CHAIRMAN SHEPARD: "Agent Orange Update." That's the follow on to "Agent Orange: A Search for Answers."

MR. SNYDER: Do you think you might be able to arrange for both of those in the last final editions?

CHAIRMAN SHEPARD: I certainly will attempt to, yes.

MR. SNYDER: Thank you.

CHAIRMAN SHEPARD: Are there any other materials that might be requested that fall under this same sort of general category?

MR. WALKUP: There were a couple of studies we talked about this morning, but you had made notes of them at the time, with the presenters.

MR. SNYDER: Times Beach was one we weren't sure that it had or had not been distributed.

CHAIRMAN SHEPARD: Times Beach has been published. We'll get copies for you. Okay. Actually, I think it's the Quail Run. Have you all seen -- I think we sent copies of the NCI study, Sheila Hoar study?

MR. SNYDER: Yes.

CHAIRMAN SHEPARD: Everybody received that.

MR. SNYDER: I'd like to take a minute. I appreciate over the past several weeks that you've gotten a number of items to us, and that has been very helpful, and I thank you for that, for arranging for all that.

CHAIRMAN SHEPARD: Hugh?

MR. WALKUP: Yes, I would like to add to that. That I think since our last meeting I have really appreciated your

office's responsiveness and the amount of information and materials that we have received. I thank General Wells, Dr. FitzGerald and Mr. Snyder for their help in helping us get organized and communicating our suggestions and helping implement them. I think that has helped this meeting immeasurably.

I know it's helped me be better prepared for the meeting and I feel as if we're making more of a contribution than in the past. Thank you.

CHAIRMAN SHEPARD: Thank you. Okay.

MR. WALKUP: Would this be an appropriate time for that resolution I was talking about, or when would be a good time for me to bring that up?

CHAIRMAN SHEPARD: Any time. Go ahead.

MR. WALKUP: Lacking my word processor, but getting into "whereas's" let me read it to you. "Whereas the veterans outreach program vet centers have provided invaluable outreach and information and support to Vietnam veterans on Agent Orange as well as other issues, and whereas federal and community resources for Vietnam veterans issues continue to decline while demand increases, the committee encourages the Administrator to identify means to continue existing vet centers and community outreach locations.

MR. SNYDER: Second.

CHAIRMAN SHEPARD: That's fine. Any discussion?

DR. KAHN: The outreach centers are something that works.

CHAIRMAN SHEPARD: I think that's fine, and I will be happy to transmit that to the Administrator. There is another advisory committee that deals more closely, historically, with the vet center program. So it might be a good idea if you have somebody on that committee to introduce it.

You're smiling. You're sounding like it's already been done.

DR. WALKUP: They're way ahead of us.

CHAIRMAN SHEPARD: They've done it. Okay. So what you're doing is adding --

MR. SNYDER: Adding the number and the noise, yes.

CHAIRMAN SHEPARD: All right. Okay. Fine. Very good. I was not aware that it had been introduced in that because I haven't attended that last meeting.

Can we have a copy of that, and we'll type it up and add to this?

DR. WALKUP: Oh, of course.

CHAIRMAN SHEPARD: I've given it to Don Rosenblum. Appreciate it. Okay. Any other questions concerning service organization concerns? Unfortunately Mr. Estry is not here and Mr. Gorman had to leave. By the way, did someone pick up Mr. Gorman's folder? Okay.

AGENT ORANGE WORKSHOP

Next on the agenda is the discussion of the Agent Orange workshop idea. Should a consensus Agent Orange workshop be held next year to review available information regarding Agent Orange effects? Who should sponsor it? How should it be structured? What should the VA's role be? We circulated these questions to the committee, and we have had some responses.

I think in general, if I'm correct in summarizing this, there seems to be a general consensus that it would be helpful to have such a workshop. I'm not sure the level of enthusiasm for it. Let me just share with you an idea I've just developed in my mind in the last couple of days.

Next year there is to be an Agent Orange, a dioxin workshop in Las Vegas, similar, I guess, in some respects to the workshop -- excuse me -- the symposium that was recently

held in Japan. I think at a previous meeting, Hugh Walkup suggested that maybe it would be a good idea to have this workshop outside the Washington area in a more central location. And I think he even volunteered maybe to have it closer to the State of Washington.

DR. WALKUP: Another central location.

CHAIRMAN SHEPARD: Right. Another central location. Maybe Las Vegas is something a happy medium.

DR. WALKUP: How about Hawaii?

CHAIRMAN SHEPARD: I think -- at least it's worthy of consideration perhaps to think about organizing, if it's the feeling of the committee that such a workshop would be helpful, perhaps to organize it in conjunction with the Las Vegas meeting. The timing is about right, about a year from now. A lot of studies will have been completed between now and then. Hopefully, the program will be of interest to -- at least in large measure to the work of this committee and also the Environmental Hazards Committee.

I have volunteered, and it's my understanding that my volunteering has been accepted, to serve as a member of the committee for that symposium. So I just throw that out as a thought, the possibility of running an Agent Orange workshop

in conjunction, or back to back with this symposium.

MR. SNYDER: Would it be realistic to think that both these commitee and the Environmental Hazards Committee could happen to have their meetings the day after or before or during?

CHAIRMAN SHEPARD: That's, in essence, what I'm proposing and run a workshop, a consensus workshop, in conjunction with that.

DR. FITZGERALD: I'm not sure what you mean by a "workshop"?

CHAIRMAN SHEPARD: Okay. It seems to me that what is needed at this juncture, or more accurately maybe a year from now when much of the research that we've all been anxiously awaiting for will, in fact, be completed and published. Research that deals directly with the Vietnam veteran. A lot of research has gone on, and much of it has been presented at these various symposiums. Relatively little of it, and Dr. Kahn's study, of course, is a notable exception, relatively little of it has dealt directly with the Vietnam veteran and the Agent Orange issue although tangentially they are related in many ways.

So a consensus workshop, as I would envision it, would be an attempt to bring together the research that pertains directly to the Vietnam veteran and Agent Orange exposure for

the benefit of people in leadership positions who deal with concerns of veterans in an attempt to come to some kind of, at least beginning a process for developing a consensus as to where we stand, what the evidence is so that we can all be sharing that. And hopefully be speaking with one voice, not that we'll ever get total agreement on all of these issues, but at least begin to build a sense of consensus as to the relevance of this research and begin to sort out for veterans what has developed and what may still lie ahead unresolved.

For example, the question of birth defects --

DR. FIZGERALD: Question of what?

CHAIRMAN SHEPARD: Birth defects. Two large studies have been done. I don't know that I'm speaking for veterans, but I have a sense that birth defects question is, at least in part, resolved in the minds of many veterans. I'm sure there are people who will not accept that, but I just cite that as an example. Whether it's a good example or not, I don't know.

But to begin to look at the evidence and see if we as people who are familiar with the research, have been monitoring the research, are comfortable saying words of assurance, if that is appropriate, or words of concern, if that's appropriate, to veterans who continue to be concerned. In other words, to

have a network of informed people to relate questions on an informed basis to veterans. That's a longwinded answer. Did I answer your question?

DR. FITZGERALD: Not really.

CHAIRMAN SHEPARD: Maybe that's as close as I come to answering your question.

DR. FITZGERALD: I think really what I'm after are the nuts and bolts, what format it would be in, what we're talking about because when you're talking about a workshop among different organizations, they're all going to have to clear that answers with the individual organizations.

CHAIRMAN SHEPARD: Maybe the first one of these workshops will be more exploratory than definitive. But it seems to me that this time a year from now we're going to have a lot more answers, or a lot more evidence, a lot more results of studies that we can deal with than we have now.

DR. FITZGERALD: I can't think of a better place than Las Vegas.

CHAIRMAN SHEPARD: Put all the studies in the hopper and spin the wheel.

GENERAL WELLS: I have a problem.Who is going to attend this workshop?

CHAIRMAN SHEPARD: I'm sorry?

GENERAL WELLS: Who's going to attend this workshop? Just committees or state committees, or veterans or --

CHAIRMAN SHEPARD: All of the above. I don't know.

GENERAL WELLS: Oh, I see. Okay.

CHAIRMAN SHEPARD: Yes. That's obviously a very legitimate question and one that would have to be worked out by a planning and organizing committee. I guess I would like to hear some expression from other members of committee as to whether or not they would think such a process would be useful. Obvioulsy, it's going to take a lot of work, and probably some degree of money.

My sense is that the VA should not be the prime sponsoring organization. I would like to have somebody outside the VA take a leadership role. I mean not to say that the VA won't cooperate and co-sponsor, whatever, but I think it would add to the credibility of the process if it were at least co-sponsored by other than the VA. A consortium of service organizations, for example. A consortium of state organizations, for example.

MR. CONROY: Do you envision the results of this workshop being published, Dr. Shepard?

CHAIRMAN SHEPARD: I would certainly hope so. If it were well put together, I think it would be a great shame if the results were not published. It would be fact-finding and then consensus building, and then a publication that the various sponsoring groups would endorse.

In a sense, and in somewhat a different way, in a sense, not too dissimilar to what the American Medical Association is attempting to do, to gather the facts and come up with conclusions, aimed at a different audience.

MR. SNYDER: I think for our organization that we are generally in support of opportunities to get information. Whether this would be the shape or the forum to do that, I'm not sure yet until we know more of whether we're guessing that this would be something potentially co-sponsored by -- perhaps a workshop added to the symposium, and would have some reservations, I think, about VVA appearing as a co-sponsor along with the American Chemical Society. It wouldn't exactly be like cosponsoring something with Dow, but close to that.

CHAIRMAN SHEPARD: I wouldn't say so.

DR. KAHN: That should not be an objection. I'd say the power of Dow Chemical in the American Chemical Society is minor, at best. You would not get any hanky-panky, as it were,

occurring in a meeting with ACS sponsorship. And if there were there would be bloody well loud scream from within the ACS about any such attempt. One would have to be somewhat careful in organizing a conference to be sure that all views are represented but that would not be something that the ACS itself would take part in. The conference organizers would do that.

Where you would get help from the ACS would be in logistics, how to set up a conference. There may be reasons not to do this, but that's not one of them.

MR. SNYDER: Good. Thanks for clarifying that.

CHAIRMAN SHEPARD: ACS is a professional society.

DR. KAHN: I'm a member of ACS.

MR. SNYDER: Okay.

CHAIRMAN SHEPARD: Any other comments? Do you think it's a good idea? Am I whistling in the wind? I view it as a service to concerned veterans. In other words, if they can't look to this committee as coming up with some kind of information, and it very much touches on what you were saying earlier, Hugh, and I'm in full sympathy with.

DR. KAHN: The problem would be this, Barclay, I see two kinds of problems. One is somewhat philosophical. One is practical. Okay. I don't think either are insurmountable, but

the practical one is organizing a conference, and I've done it before, is one hell of a job. I can't take it on. I don't know about the other people here. I'm already drowning. I have a fulltime teaching load, two fulltime research activities, and I have a sabbatical coming up in a year, and I'm not going to miss it.

So the practical aspects of getting such a thing off the ground done in a craftsmanlike manner are not trivial.

CHAIRMAN SHEPARD: No. I know. I've done it too.

DR. KAHN: The second is somewhat more philosophical. And that is that the notion of consensus meetings in science is a slightly sticky one in that consensus is not something that you can force, nor is it something that you're likely to arrive at by extended discussion if the data themselves still leave room for doubts on either side.

And the data will leave doubts in this case on both sides. To try to impose a consensus in that kind of a situation is going to be badly perceived from the hinterlands, and could cause more trouble -- could. So one would have to be extremely careful in writing up the results of such an event to ensure that where there is disagreement, the nature of the disagreement is fully aired so that people understand where it is one side

says yea and the other side says nay.

And why? If you don't do that, then you've done more harm than good, and you're just going to add fuel to the fire. And that in itself because of the philosophical problem of dealing with the notion of consensus in science when it may be premature that's a sticky wicket.

CHAIRMAN SHEPARD: I couldn't agree more. I agree with everything you have said wholeheartedly. And I didn't want to imply that this would wrap up the whole issue, and we could all walk away from Agent Orange and wash our hands of it. Not at all.

When I say a consensus workshop, I didn't mean that this would put the lid on it or make it -- I think at some point the process needs to be started, and this would be an attempt to see what it takes to start building consensus. Obviously, one cannot force consensus, and it's highly unlikely that there would be consensus on every point.

But to begin to look at the issue of where science can help and where it can't, what studies seem persuasive, what studies have scientific acceptance, peer acceptance, that sort of thing. In other words, we could start, it seems to me an effort could be made to start looking at how we can

agree on certain things.

MR. CONROY: And I think, Dr. Shepard, Congress and veterans, too, have been coming to us saying, well, now the federal government has invested well over $100 million into Agent Orange related research. Where does the preponderance of the evidence comes down, and I think that would be a starting point for establishing that.

CHAIRMAN SHEPARD: I think we owe it to the taxpayers to begin to start this process. As you say, a lot of money has been expended, but my first concern is really for the well-being of veterans, and I think that they are looking to groups such as ours to give them the answers.

DR. WALKUP: I think there are two points I would like to make. One, as I understand it, we would not necessarily be a group of scientists having a quasi-formal consensus of thing. That in addition to the problems that Dr. Kahn identified that there would be a number of non-scientific members and a number of interested parties who had some other issues.

Consequently, I think that the number of the issues that would need to be discussed would be issues that aren't doable by science, or aren't relevant to scientific studies, but are to some extent political, moral, philosophical sorts of

issues that I think often are of a concern to the veterans we have been talking about.

Second, I would like to point out that I have the impression that initially this idea got underway when Dr. Young was here about a year ago, and referred to getting closer to the point where we could identify Agent Orange as a myth. And there may be expectations in some circles that we may be moving towards the place where there would be a consensus as we saw to some extent from the AMA, or the Scientific American article, are those kind of things that says, okay, we haven't found anything real relevant. We've spent a lot of money. Let's get off of this dime. If that is the expectation of a workshop organized in a way you're talking about, I think they would be better off investing their money someplace else.

I think that what would happen, as you said, a continuing dialogue that may resolve or clarify some issues for some veterans, but would hopefully expand the involvement of people in the sorts of issues that we deal with frequently.

CHAIRMAN SHEPARD: Okay. One of the things that I would envision is that the science would be presented at the symposium. The detailed technical scientific papers and evidence would be presented at the symposium. People who are interested -

DR. KAHN: Well, those are going to be current papers, Barclay.

CHAIRMAN SHEPARD: What?

DR. KAHN: At the symposium, the Dioxin '87, those are going to be current papers.

CHAIRMAN SHEPARD: Yes. That's what I'm saying.

DR. KAHN: All right. So it wouldn't be the whole --

CHAIRMAN SHEPARD: The new science would be presented at that.

DR. KAHN: But some of the background stuff has been out there awhile, including stuff that is now already published, won't appear.

CHAIRMAN SHEPARD: That's true. That's true. But --

DR. KAHN: If that is going to get reviewed as part of our general discussion --

CHAIRMAN SHEPARD: If I may finish?

DR. KAHN: Sorry. Go ahead.

CHAIRMAN SHEPARD: Okay. The new science will be presented at the symposium so we don't have to spend at the workshop which will be possibly a follow-on to the symposium, but scientists would be attending the symposium in order to absorb the new science, and then could follow on with an interpretation

in somewhat less scientific terms. You know we've been grappling with trying to make science understandable, or translated to people who are not scientifically trained necessarily.

But that would be one of the benefits of having them run back to back and that the scientists attending the symposium chances are would have attended symposia and would be familiar with the science in its larger context, and then could be available for commenting on the completed research, either old research or a new research.

But I agree. I'm not of a mind, or I'm not persuaded, or not naive enough, to think that one such workshop is going to solve the issue. But I think a start needs to be made. That is my personal opinion. I just wanted to get feelings from the rest of you as to whether or not you think that would be the worth the effort.

DR. KAHN: It depends on whose effort.

CHAIRMAN SHEPARD: Sure. But aside from whose effort, if the concept is a good one, is worth pursuing at least, through exploratory, then I guess who would be willing to be part of the process? I think it ought to be a broadbase group.

And the VA, although playing a supportive role, should not necessarily be playing the lead role. So I'm even

hesitant to leap into this very far without fairly broad support.

DR. FITZGERALD: I think I disagree with you, and the reason for that is that I think the summation of Agent Orange has got to come from the VA per se. But this group as well as the scientific group acts as an advisory, not as a prime body. I don't think you'll ever get complete consensus, as we've already expressed. We'll get a lot of agreement, and I think it might be quite appropriate because of the time that has passed and the multiple meetings that we have had to spend a meeting to come up with a summation of what at this time we agree on.

And what we don't agree on that has to be pursued further, rather than have just a workshop. I think your question is very valid. The time has come now to come and say where are we, what have we done, what do we agree on, where we should be going, rather than just listening to a lot of individual presentations.

CHAIRMAN SHEPARD: As part of the process, the next meeting, for example, of this committee could be started along those lines.

DR. FITZGERALD: The entire meeting.

CHAIRMAN SHEPARD: Yes, the entire meeting. How would you all feel about that? Or if not the next -- well, the next meeting, if it were done in conjunction with the Environmental Hazards, and at least we would have a fairly broad-based process there that would involve a lot of individual scientists and two committees. Does that make sense?

COMMITTEE EFFECTIVENESS

All right. Thank you very much. We have another agenda item -- committee effectiveness. I don't know if you want to start discussing that. It's a rather knotty problem at this late hour, but --

DR. KAHN: There is one thing that I would like to raise here that came to mind, and I don't think we should spend much time on this. The CDC has just done a study of 50 exposed people in Missouri, as we mentioned, and 50 unexposed, and they presented it in Japan, as I described, and as Mr. DeStefano described.

They did an excellent job of it. No question about it. And the first time the existence of that study became known to the members of the committee is when they presented it in Japan. We didn't know that they were studying dioxin levels in Missouri people until that study came out.

And yet the planning for that study must have taken

some time. I know for a fact that they began serious measurement sometime after March of this year. And that they have been working on the laboratory getting it up to scratch until then, and getting their methods worked out and so forth.

Why weren't we told? That is certainly relevant to the questions we consider? Why didn't we know about that study in the planning stages?

CHAIRMAN SHEPARD: Well, a couple of things come to mind. First of all --

DR. KAHN: We are here for that purpose.

DR. HODDER: They did make it known that they were going to be doing serum levels. If that was a pilot study, I doubt if it even had a very significant write-up. It was probably done fairly much -- for two years now they have been talking about -- Vernon Houk has been talking about trying to do blood levels in lieu --

DR. KAHN: Talking about is one thing. Coming out with a formal protocol for a study which they followed quite well. They actually did a very nice job of it. No quibble.

CHAIRMAN SHEPARD: They never sent us the protocol. If you are suggesting that we had prior information, it was -- first of all, it was not a study of veterans. As far as I

know, there was no veterans.

DR. KAHN: I realize that, but certainly it bears on the question over which this committee has purview, and while they may never have sent you the protocol, I find it hard to believe that somebody in the VA didn't know it was going on. You may not have had the documents, fair enough, but in any case, since the VA does have some liaison role with the CDC to know what's going on in the field, I find it -- I just don't find it believable that the VA didn't know that this was going on.

CHAIRMAN SHEPARD: The VA knew that the CDC was doing an analysis of blood and fat levels in people exposed, occupationally exposed and residentially exposed. They were also doing --are you talking about the blood and fat analysis?

DR. KAHN: Yes. Yes, the blood and fat analysis.

CHAIRMAN SHEPARD: Analysis.

DR. KAHN: You must have known about that.

CHAIRMAN SHEPARD: Yes, and so did the Congress and so did the congressional --

DR. KAHN: We didn't know about it at all. We had no clue.

CHAIRMAN SHEPARD: Okay. I apologize if that is the

case. I had the impression, as Dr. Hodder did, that it's been talked about in this committee for some time as a proposal that CDC has been entertaining.

DR. KAHN: Yes. We knew that there had been a proposal entertained, but you know, proposals rise and proposals fall. They come and they go. And you never know when you hear that whether it's real.

CHAIRMAN SHEPARD: I guess if you're concerned about it, then one way to deal with that is ask. We were aware of it. It didn't bear on this committee directly. I'm sure it bore much more directly on you. I was under the impression, as a matter of fact, that you -- as a matter of fact, I was told at the Beyreuth Conference that you had talked with the people.

DR. KAHN: I have indeed. I knew they were planning -- but the point is, see, even there they were cagey with me. I talked with Jim Pirkle and several other folks down there, but mostly with Pirkle. And they were pumping me for information which I was freely willing to give about what we were doing. Okay. I couldn't get a squeak out of them as to what they were doing.

CHAIRMAN SHEPARD: We didn't either, Peter. We had no inside information. I mean you were privileged to as much

information as we --

DR. KAHN: Mind you I didn't try very hard at that time. But it seems to me that if there is something that goes on in the area of health related effects of herbicides that that certainly is related. We should have known about it. Somebody dropped the ball.

DR. HODDER: I hate to go on record of saying something like this, but having worked with the CDC before, information transfer often is one way.

DR. KAHN: Yes. Right.

MR. SNYDER: Is that one of the studies -- as I understood the process -- things presented at the symposium have not been published.

DR. KAHN: That's correct. They have not been published.

MR. SNYDER: They take comments and then he writes something.

DR. KAHN: Right.

MR. SNYDER: And there is not even any preliminary stuff in writing to pass on for example to the other like the Environmental Hazards Committee?

DR. KAHN: No, but for example, I got up here -- but

see, Keith, what's happened is I've gotten up here at this committee meeting a number of times, two or three times, I guess over the last few years, and I've explained what we're doing, how we're doing it, why we're doing it, and what our progress is without giving results. Okay. Why didn't the CDC do that?

Certainly if they're going to use the measurements they made on Missouri people as justification for doing a pilot study of Vietnam veterans in order to rescue the big epidemiological study on Vietnam veterans, we damn well should have been in there at the groundwork, and we weren't, and I want to know why the hell we weren't.

You know, information sharing has got to be a two-way street. To put it crudely, if it doesn't come my way, it isn't going to go the other way.

CHAIRMAN SHEPARD: You're looking at me as though I have the responsibility of sharing all scientific --

DR. KAHN: No, no, I don't mean that. The point is, Barclay, I think you've been had here. Barclay, I think you've been had here. I don't rank you as holding information back from us on this particular case. I agree you probably had no more information than I did in this.

And what I had was damn little. And I don't think

that is the right way to go. Well, you have some oversight capacity over what the CDC is doing.

CHAIRMAN SHEPARD: Not in that regard.

DR. KAHN: No?

CHAIRMAN SHEPARD: None of that money, or any of that money was provided for the Agent Orange work. No, that is not true. The only hesitancy I have is, in part, you're right because they did propose that at one of the Agent Orange Working Group science panel meetings this summer. And it was also discussed during one of the House -- well, I think the House hearing was it not? Dr. Mason, Dr. Houk.

DR. KAHN: It was the House committee meeting that occurred sometime before I went to Japan.

CHAIRMAN SHEPARD: Last summer, yes.

DR. KAHN: It was summertime. That's the first I heard of it.

CHAIRMAN SHEPARD: Well, you heard about it very soon after I first heard about it because they came up with the proposal at the same time.

DR. KAHN: They had been working on it. That was in the summertime, late July, early August, something like that before Congress broke up. They had been working like dogs on

that thing since March doing the samples.

CHAIRMAN SHEPARD: They had been talking about since the Beyreuth meeting.

DR. KAHN: Yes. And the methods work must have been going on for the previous year. If all that is in the works, why the hell didn't we know about it? That's our job to know.

CHAIRMAN SHEPARD: I guess it's our job to find out, too, Peter. I think that you as a member of this committee have an equal responsibility if you think something is going on to pursue it or to ask me. If you can't pursue it, then ask me to pursue it in your behalf.

DR. KAHN: It only occurred to me in Japan. The problem only occurred to me when I was in Japan of why the hell didn't I know about this in advance.

CHAIRMAN SHEPARD: 20/20 hindsight is good stuff.

DR. KAHN: Yes, right. Okay. But the point is -- I don't blame you for this. You're not responsible for what happened. Okay. You've been had like the rest of us.

CHAIRMAN SHEPARD: Well, I don't --

DR. KAHN: I'm a little bit annoyed over that.

DR. WALKUP: Okay. What we do around here when we get annoyed about things is we pass resolutions, Peter, which

really solves all the ills of the world.

DR. KAHN: A resolution, whereas, et cetera -- I would like to see some way of finding out -- I don't quite know how to frame this -- that the CDC could be admonished in some way to share with us what their plans are before those plans are engraved in stone.

CHAIRMAN SHEPARD: Well, they had -- it was kept fairly --

DR. SNYDER: Well, for the final study for this thing, the gentleman, Dr. DeStefano said he would talk to you afterwards about the protocol for the pilot study on the serum, the cross-reference to records and what not.

DR. KAHN: Yes, I talked to him afterwards. He gave me his name.

DR. SNYDER: But he didn't volunteer to give us the protocol. And we didn't have that ahead of time. Are we going to get it?

DR. KAHN: He told me he didn't have the authority to have me review it in advance of the 27th, but that if I would call him at his office within the next day or two, he would see about arranging that. Mind you I have to write a major biochemistry exam for the 28th. I have all sorts of other things

to do, and it's now the 22nd, 21st. I forget. How am I going to do all that?

MR. SNYDER: Do you have access to that? I mean if you had access to it, I guess is one question. But are you free, then, to pass it along is, I guess, always a separate question.

CHAIRMAN SHEPARD: Well, this has all happened very recently. It was passed to the Agent Orange Working Group science panel.

DR. KAHN: What's going to happen is they're going to review this thing on the 27th, okay. They're going to approve it; right. And after that any sort of comments --

CHAIRMAN SHEPARD: I would not be so confident that that was the case.

DR. KAHN: Well, I think that's going to happen. Any further comments from us are going to be irrelevant at that point. What sort of way is that to run a railroad?

MR. SNYDER: Well, wait a minute. If in fact --

CHAIRMAN SHEPARD: It's a question of who's running the railroad.

MR. SNYDER: What do you think our committee should do, for example, if there was not approval to go forward with the pilot? I mean if you don't have approval to go through with

the pilot study, then you don't have approval to go with the epidemiological study.

CHAIRMAN SHEPARD: Let me point out something. This committee is not in the approval chain for protocols to be done by another agency. Okay. I have to tell you that.

DR. KAHN: I realize that. But we are--

CHAIRMAN SHEPARD: I'm not in the approval chain.

DR. KAHN: Okay. But we are advisory.

CHAIRMAN SHEPARD: The VA really isn't in the approval chain. The only role the VA plays is a member of the Agent Orange Working Group, and I do sit in as a member of the Science Panel of the Agent Orange Working Group.

DR. KAHN: Yes. But the point is, Barclay, what you said is part of the truth, not the whole truth. Okay. We are advisory to the VA, and the VA has a role in that approval even though you don't dominate it.

CHAIRMAN SHEPARD: Okay. I think the VA also has the prerogative of asking what kind of advice they want. Not necessarily that. Let me withdraw that. Back up.

MR. SNYDER: Well, no, that's an interesting statement, since this is a transcription of that. You can't exactly withdraw that.

DR. WALKUP: That's a very true statement. I think --

CHAIRMAN SHEPARD: That isn't to say that you cannot advise the VA on any subject you wish, but if the VA wants your advice, if the VA wants and solicits your advice, then I think the VA initiates that. If you feel that VA needs your advice, then it's your opportunity and responsibility to initiate that advice.

If we don't know that you want to give us advice on something, then for you to turn around and say why weren't we consulted on this, I think is a little bit out of the prerogatives Now, you may feel that way, and I can't fault you for your feelings, but I think an advisory committee -- my understanding of it is to be available when advice is sought on a particular issue.

DR. WALKUP: Okay. I think maybe it would --

CHAIRMAN SHEPARD: It's a two-way street, though. I agree.

MR. SNYDER: That's a big difference I think than my view of what advisory committees should be doing in any capacity, whether it's us advising a federal agency or us, a subcommittee of an organization, advising the organization. Certainly you are given a charge, and you are asked to do things. And maybe

your advice is specifically solicited on some items, but you're always out there and you're supposed to be awake and being conscious of issues that are developing and bring them to the agency.

And I wouldn't want to think that we're not asked to comment on things because our comments aren't wanted on certain things. I'm not sure that's the message that you were partly suggesting or not.

GENERAL WELLS: I don't think that's what you meant to say.

MR. SNYDER: You said that the VA is free to solicit from whom it wants advice.

CHAIRMAN SHEPARD: Yes.

GENERAL WELLS: Sure, and it is.

MR. SNYDER: And it's free to not solicit it from us. And I think what I'm saying is that we as a committee or I as a member of this committee want to feel a little more like I'm in a position to advise whether my advice is sought or not.

GENERAL WELLS: That's right. We can advise. Whether they take it or not -- and the other thing is I think we can request information, but I don't think we can demand it.

DR. KAHN: Fair enough. Fair enough. But here is the

case, though, where something that was directly relevant to what we are here for -- okay -- you can't get much more relevant than the chain of logic linking the current CDC results on fat and blood measurements to the ultimate epidemiological study. So it was directly relevant, and the CDC did not trouble to share what they were doing with anyone.

I don't blame you for this, Barclay. Let me say it again. You didn't create that situation.

CHAIRMAN SHEPARD: My shoulders are broad. You can blame me if you want to. No, I --

GENERAL WELLS: I don't see anything wrong where we could make a comment that there was question in the committee as to why. But for us to say they will, I think, is --

DR. KAHN: No. I'm just raising the question, Barclay, for you to pass on to wherever it might do the most good as to why we were not told about this at a more advance stage.

CHAIRMAN SHEPARD: I guess I, in part, feel that you as an interested scientist has an obligation to this committee to find out, or if you're having trouble finding out that you then maybe turn to me and say can you help me. I'm an interested scientist, a member of your advisory committee.

DR. WALKUP: I would suggest that the advice of this

committee to the Veterans Administration be that the Veterans Administration through the Science Panel or whatever is the appropriate means attempt to make veterans concerns and issues relevant to any study touching on health effects of herbicides, whatever the agency -- I think that's the advice Dr. Kahn has been giving you.

MR. SNYDER: Yes, and raise --

DR. WALKUP: That it's as an advocacy -- within the federal government, the Veterans Administration role -- my advice to the Veterans Administration would be that you take on the role of advocate for the veteran vis-a-vis other agencies where their activities touch on the health and well-being of veterans. I think this is a prime case of when that was there. And hopefully somebody in the Veterans Administration on the Science Panel did talk about some of those issues.

And as advisors we would like to help you do that better.

CHAIRMAN SHEPARD: In response to that -- you almost volunteered, and I will pick that up -- I would like very much to consider the appointment of a small subcommittee of this committee to look at the issue which you brought up earlier, Hugh, of setting up a mechanism for communicating points

of value to the veteran community who remain concerned about this issue. And I would like very much, Hugh, for you -- you don't have to give me an answer now -- to consider chairing such a subcommittee to look at how information can be organized effectively to be shared with the veterans.

As I said, you don't have to give me an answer now, but please think about it and we can get together by phone or by letter or whatever. I think it's a very important issue, and I think it may turn out that that is the most important function of this advisory committee to advise the VA on how to share and to help in the process on how to share information with concerned veterans. Because we keep getting criticized for -- I get the sense that the VA keeps getting criticized because there are still concerned veterans out there.

We cannot, I don't think, turn off that concern. I think that concern is going to be with us for quite awhile. But I think we do have an obligation as an agency, and I'm speaking for the VA now, we do have an obligation to share information in an as effective a way as possible with veterans which will be helpful to them.

DR. FITZGERALD: I'm not sure that that's an appropriate

task for this committee, but rather for the Information Service of the Veterans Administration. We can pass on to them information that should be publicized. In fact, that is how the pamphlets got started. That's how your tapes got started. We can say to you this isn't sufficient. The Information Service is not doing an appropriate job at the present time.

CHAIRMAN SHEPARD: I'd like to go off the record for a minute and share some things.

(Whereupon, a discussion was held off the record.)

CHAIRMAN SHEPARD: Yes. I certainly will make an attempt to have the tape shown to the committee.

GENERAL WELLS: I don't see any reason why the committee couldn't say that one of the major issues within this committee is the lack of credibility or the lack of capability to get information out to the concerned veteran.

DR. WALKUP: I want to make sure. We kind of switched there. I want to reiterate my point before. I agree that information out to the veterans is important, but I think the other issue about the role of this committee, and the role of the Veterans Administration vis-a-vis other federal entities is important, not to be lost. And I just want to make sure

that we don't get the two things crossed.

CHAIRMAN SHEPARD: And I think we've done that, Hugh. The Agent Orange review talks about research being done outside the agency as much as it does about --

DR. WALKUP: Right. Right. And specifically one of the things that I don't think we've talked about a lot, but something that seems to me like it's going to -- that we need to look at some more is how do we look at the sub-population of Vietnam veterans within the epidemiological studies or studies of other populations where at times we've got people living in the trailers who are Vietnam veterans.

Now, what's the impact of the double exposure that they are experiencing? Is there any possibility of that? Or people who work in the forest or the farm? Some of those sorts of things I think are relevant to the work of our -- relevant to the interest of the veterans and the Veterans Administration. And I think a real legitimate role for the Veterans Administration, and consequently this committee to be giving some unsolicited advice to the other agencies who are involved in those kinds of issues.

MR. SNYDER: Well, it's also partly what was mentioned earlier in terms of considering standards, how to

limit exposure perhaps, looking at ways and issues relating to avoiding exposure, avoiding the problems in the future. We should be advising that those questions be looked at and examined.

CHAIRMAN SHEPARD: You're suggesting something along the lines, if you are exposed to Agent Orange don't use Weed-B-Gone in your backyard?

MR. SNYDER: Perhaps.

CHAIRMAN SHEPARD: Yes. I mean that's an example.

MR. SNYDER: Folks need to be educated that those substances aren't terribly healthy to spray around your cats, let alone your kids. And a broader than simply narrow veterans -- maybe the Veterans Administration takes the lead and points out that there is more than just Vietnam veterans involved here. That we as an agency have been looking at Vietnam veterans concerns, and those concerns have other ramifications in the environmental movement as a whole.

DR. KAHN: One of the things that is happening in New Jersey is as a result of our findings there is now going to be a much more serious effort at looking at the implications of exposure to dioxins in dioxin-like compounds in the general population.

I think this is just a minor aside scientifically. Dioxin is an interesting compound, not just in its own right but for what it signifies by way of toxic exposures to a host of compounds that have similar effects and similar long life in the environment.

So the Agent Orange question has catalyzed that work in Jersey now. There is now going to be a consortium with two or two-and-half million dollars of research money to go at it hammer and tongs. And they are talking about considerably more than that in the medium future. They are talking about bricks and mortar and research buildings and stuff like that.

CHAIRMAN SHEPARD: Any other comments? We haven't had our open forum yet.

DR. KAHN: Our forum has left.

(Laughter.)

CHAIRMAN SHEPARD: We've talked them down.

GENERAL WELLS: I must say that I really learned a lot this meeting, and I think it's been a very productive meeting.

CHAIRMAN SHEPARD: Thank you for participation.

DR. KAHN: Let's bag it.

MR. SNYDER: Thank you, sir.

CHAIRMAN SHEPARD: Okay. Any other comment? Thank you. Thank you very much.

(Whereupon, at 3:55 p.m., Tuesday, October 21, 1986, the meeting was adjourned.)





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